



BAIN & COMPANY

# NCA MHS Review

## September 2003

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# Executive summary (1/6)

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- The NCA MHS is a large, complex, high quality system that delivers care to the NCA's 434K eligible beneficiaries
  - ~80% of these eligible beneficiaries use the NCA MHS system, either through the direct care system (60%), or by purchasing care through Tricare (20%)
- The bulk of purchased care through Tricare comes from non-Prime, non-Plus beneficiaries
  - In fact, Prime patients use the direct care system 98% of the time for primary care and 88% of the time for specialty care
- Approximately 95% of direct care in the NCA is provided within existing distance access standards
  - A large part of distance access issues, for both primary and specialty care, is driven by Fredericksburg and I-95 South
  - Approximately 70% of outside of standard visits are for Prime patients
- Overall provider productivity in the NCA is between academic and private practice benchmarks, though this varies dramatically by service line

# Executive summary (2/6)

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- Population growth and geographical demographic changes will not lead to fundamental shifts in demand between 2003 and 2008
  - However, the NCA may continue to experience increases in usage rates per year
  - In addition, the phase out of NAS and STS may decrease demand for clinical service lines like OB/Gyn, Neurosurgery, and CT surgery
- Although the overall system performs well across a number of key indicators, there are significant opportunities for improvement
  - Optimizing the mix of providers across specialty lines
  - Moving providers to the south and adding facility capacity to support these providers
  - Conducting rigorous business planning for each clinical service line and optimizing accordingly
  - Taking advantage of a number of administrative opportunities to generate significant revenues/savings per year for the system
  - Empowering the multi-service market manager to allocate resources and make decisions across MTFs to optimize the care system for the NCA population

# Executive summary (3/6)

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## Recommendation 1: Optimize the mix of providers across specialty lines

- There are nine clinical service lines with provider productivity below academic benchmarks
  - These lines include OB/Gyn, Endocrinology, Pediatric surgery, Organ transplant, General surgery, Neurology, GI, Pediatric sub-specialties, and Pulmonary
- Together, these lines have an excess of 60 FTE providers, over and above academic benchmarks
  - There is not enough Prime purchased care demand in the NCA to sustain these provider staffing levels at academic productivity levels
- Excess providers can be reallocated geographically (ONCA) or, alternatively, these positions can be used to add providers to other clinical service lines in the NCA
- Provider numbers should not be reduced in General surgery based on readiness constraints
- 2008 demand forecasts similarly suggest a focus to improve productivity for the aforementioned service lines

# Executive summary (4/6)

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## Recommendation 2: Move providers to the south and add facility capacity to support these providers

- 95% of direct healthcare in the NCA is provided within distance access standards
  - Approximately 70% of outside of standard visits are for Prime patients
  - The two regions most affected by care “outside access standards” are Fredericksburg and I-95 South
- To serve Fredericksburg “outside access standard” primary care, a new facility will be required with ~8-16\* primary care providers
- To serve I-95 South “outside access standard” primary care, at least two options exist:
  - Use Quantico capacity which will open up once the Fredericksburg clinic is up and running
  - Add a new facility in I-95 South to serve both primary and specialty care
- To serve both Fredericksburg and I-95 South “outside access standard” specialty care, at least three options exist:
  - Add capacity to DeWitt to be able to relocate ~41-56\* specialty care providers from WRAMC and NNMC
  - Add capacity to Quantico to be able to relocate these ~41-56\* specialty care providers
  - Add a new facility in I-95 South to serve both primary and specialty care
- A number of options can be considered, including partnering with civilian institutions or the VA, using civilian contracting, expanding existing MTFs or building new facilities

Note: \*Range depends on recapture and provider productivity.

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# Executive summary (5/6)

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## Recommendation 3: Conduct rigorous business planning for each clinical service line and optimize accordingly

- Each clinical service line should create a detailed, coordinated, tri-service business plan in order to set strategic direction, assess the current position, and identify key initiatives
- Pediatrics (104 FTEs) was selected to illustrate the business planning process
  - ▮ General pediatrics is above academic benchmark productivity, but lags private practice benchmarks (excess of 35 FTEs)
  - ▮ Sub-specialty pediatrics lags academic productivity benchmarks (excess of 5 FTEs)
    - The current GME physician pipeline could drive lower future productivity
  - ▮ In order to maintain the current size of fellowship programs, sub-specialty lines will need to export GME graduates, source referral workload from ONCA, or increase attrition
  - ▮ Geographic redistribution of 6.1 general pediatric provider equivalents and 1.0 pediatric sub-specialty provider equivalents is required

# Executive summary (6/6)

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**Recommendation 4: Take advantage of opportunities in third party billing, contracting, and pharmacy to generate over \$50-55M per year for the NCA**

- Improvements in the collection of OHI, coding and documentation of patient encounters, and billing and collections, can generate ~\$34M per year
- Joint medical contracting of non-medical services, in particular laundry, housekeeping, and facilities maintenance, could generate savings of ~\$4-5.5M per year via lowest unit price and volume discounts
  - Additional spend categories can be considered which could further increase this amount
- Recapturing pharmacy scripts currently filled in the civilian sector could save an additional ~\$13-17M per year
  - This can be addressed through the current Tricare proposal to contract at Federal/military prices with retail outlets

**Recommendation 5: Empower the multi-service market manager to allocate resources and make decisions across MTFs to optimize the care system for the NCA population**

# Agenda

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- NCA MHS findings
- Optimization vision for the NCA MHS
- Other considerations
- Short-term initiatives detail
- Detailed methodology



# For the purposes of this study, we have defined the NCA as comprising the following 12 sub-regions

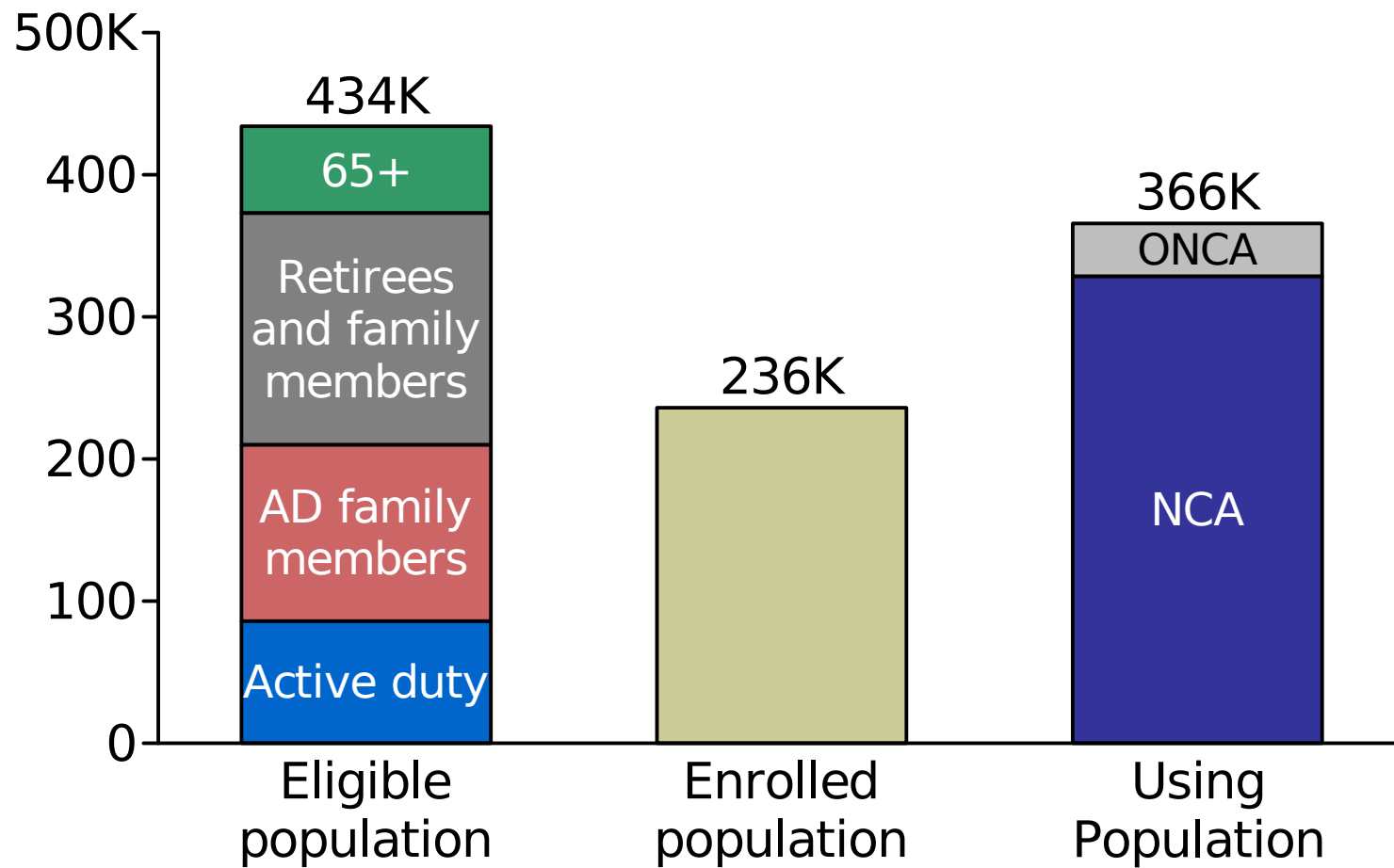
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-  Arlington
-  Baltimore
-  Chesapeake
-  DC
-  Frederick
-  Fredericksburg
-  I-95 South
-  NE DC
-  Northern VA
-  Pax River Basin
-  Rockville
-  SE DC

There are 434K beneficiaries in the NCA, 236K of whom are enrolled, and 328K of whom are

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Number of individuals (2002)

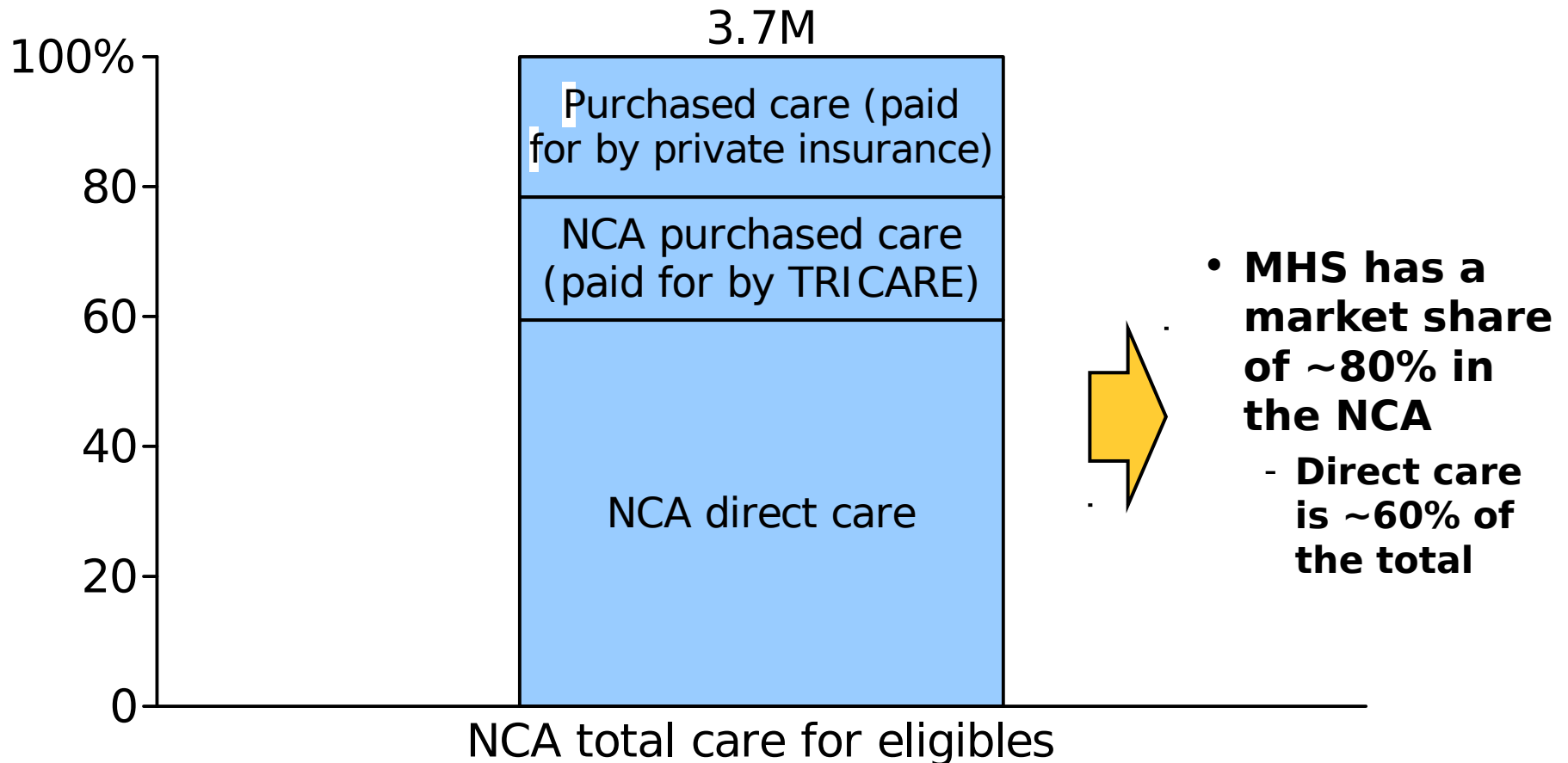


If all beneficiaries used the MHS system (direct or purchased) for their entire health care needs, demand would have been ~3.7M outpatient visits in 2002

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## Outpatient visits within NCA (2002)

 Estimated



Note: "NCA direct care" includes outpatient visits at NCA MTFs for patients living within the NCA. "NCA purchased care (paid for by Tricare)" includes outpatient visits for patients living within the NCA at network providers covered by Tricare. "Purchased care (paid for by private insurance)" includes outpatient visits at non-MTF, non-network providers paid for by other health insurance payors. Assumes eligibles use healthcare at rates comparable to Prime MHS users. NCA direct care excludes ONCA care.

Source: CDC; SADR 2002; Tricare Lead Agent's Office

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**DOD 1**

# Methodology for estimating total healthcare visits for NCA MHS eligibles

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**BACKUP**

	Prime: 0-17	All other eligibles: 0-17	Prime: 18-44	All other eligibles: 18-44	Prime: 45-64	All other eligibles: 45-64	Prime: 65+	All other eligibles: 65+	Total
Individuals	73K	30K	113K	46K	50K	61K	0	61K	434K
X									
Actual NCA Prime utilization rate (visits/yr)	5.1	5.1	7.1	7.1	9.3	9.3	15.9	15.9	
=									
Total visits	373K	151K	804K	323K	461K	571K	0	976K	<b>3.7M</b>

$$\frac{\text{Actual direct care} + \text{Tricare purchased care}}{\text{Estimated total healthcare visits for all eligibles}} = \frac{2.2\text{M} + 0.7\text{M}}{3.7\text{M}} = 78\%$$

Note: Prime utilization rates applied to 0-17 and 18-44 age buckets were actually computed for 0-24 and 25-44, respectively.

Source: SADR 2002 visit data for sample population of 199,819 enrollees; Kennell and Associates

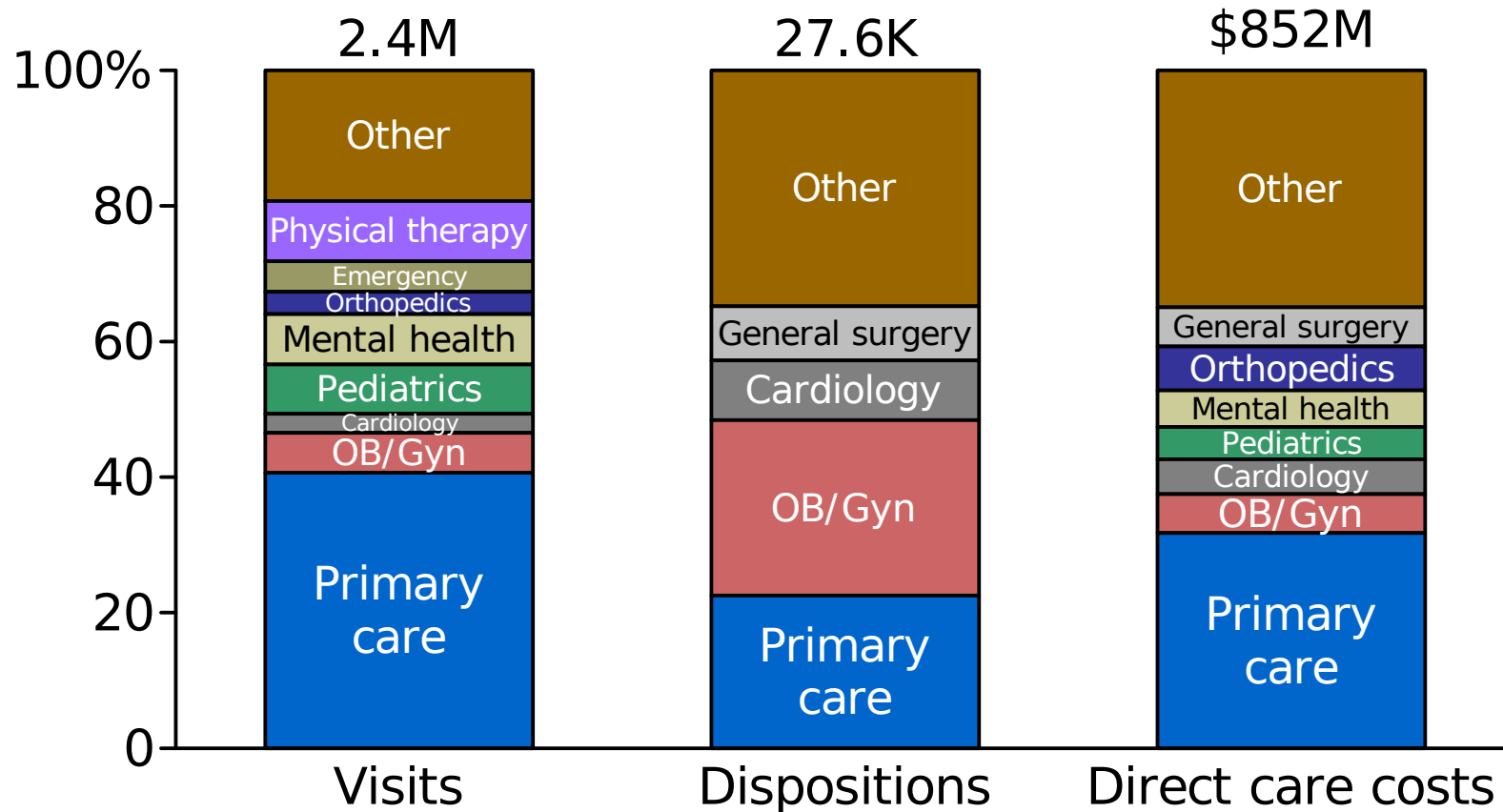
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**DOD 1**

# The NCA MTFs provide care along most specialties

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Percent of total (2002)



Note: Data corresponds to the 14 MTFs defined as being "in scope." Visits only include those in MEPRS "A" and "B" accounts. Visits exclude telcons and ambulatory procedure visits (APVs). Visits are adjusted to completion. Primary care includes family practice, internal medicine, and other primary care lines.

Source: Cost data from MEPRS; Other data from FY02 SADR and SIDR Databases

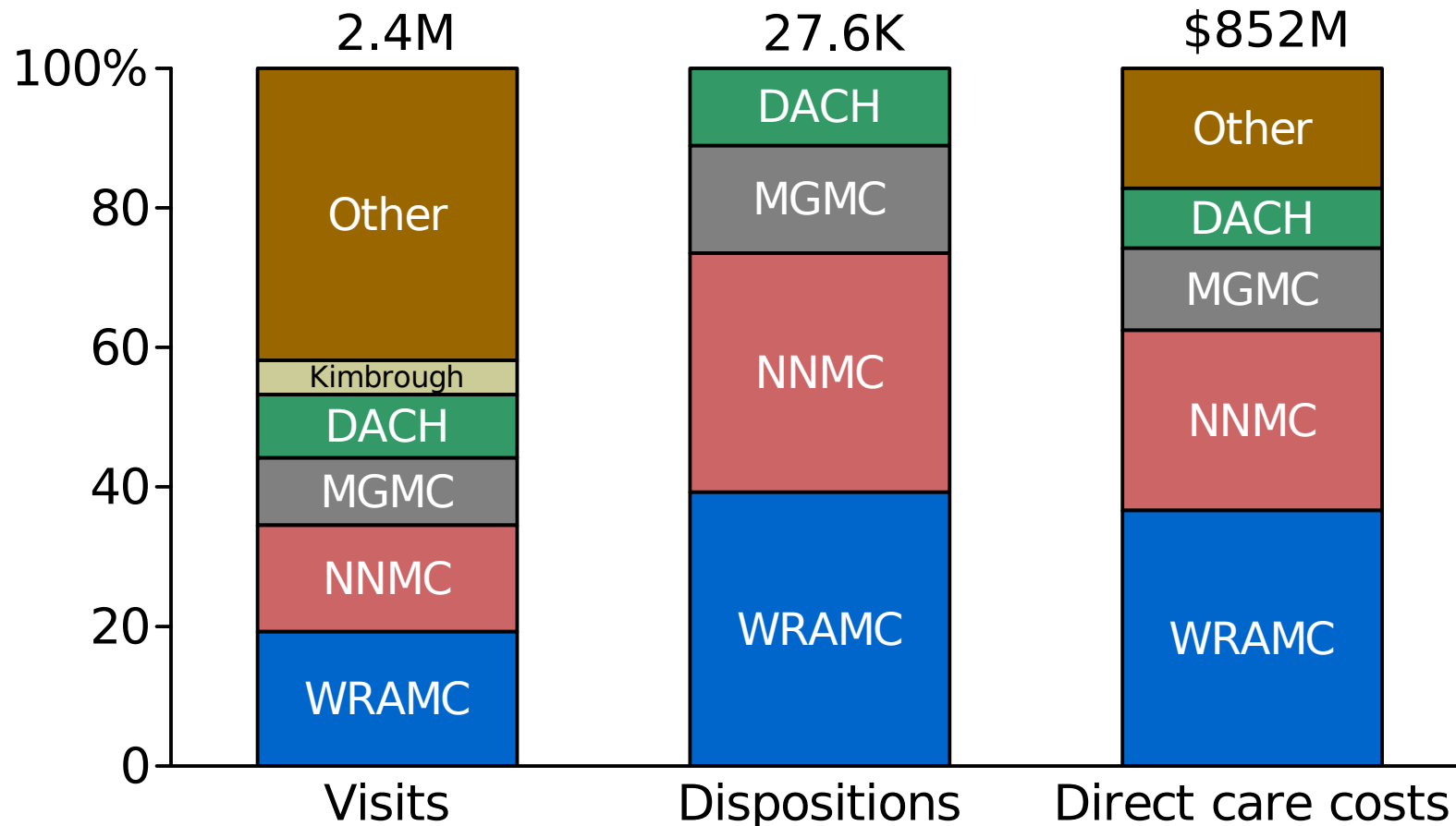
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**DOD 1**

# Inpatient activity is concentrated in the 4 largest MTFs while outpatient services are more spread out

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Percent of total



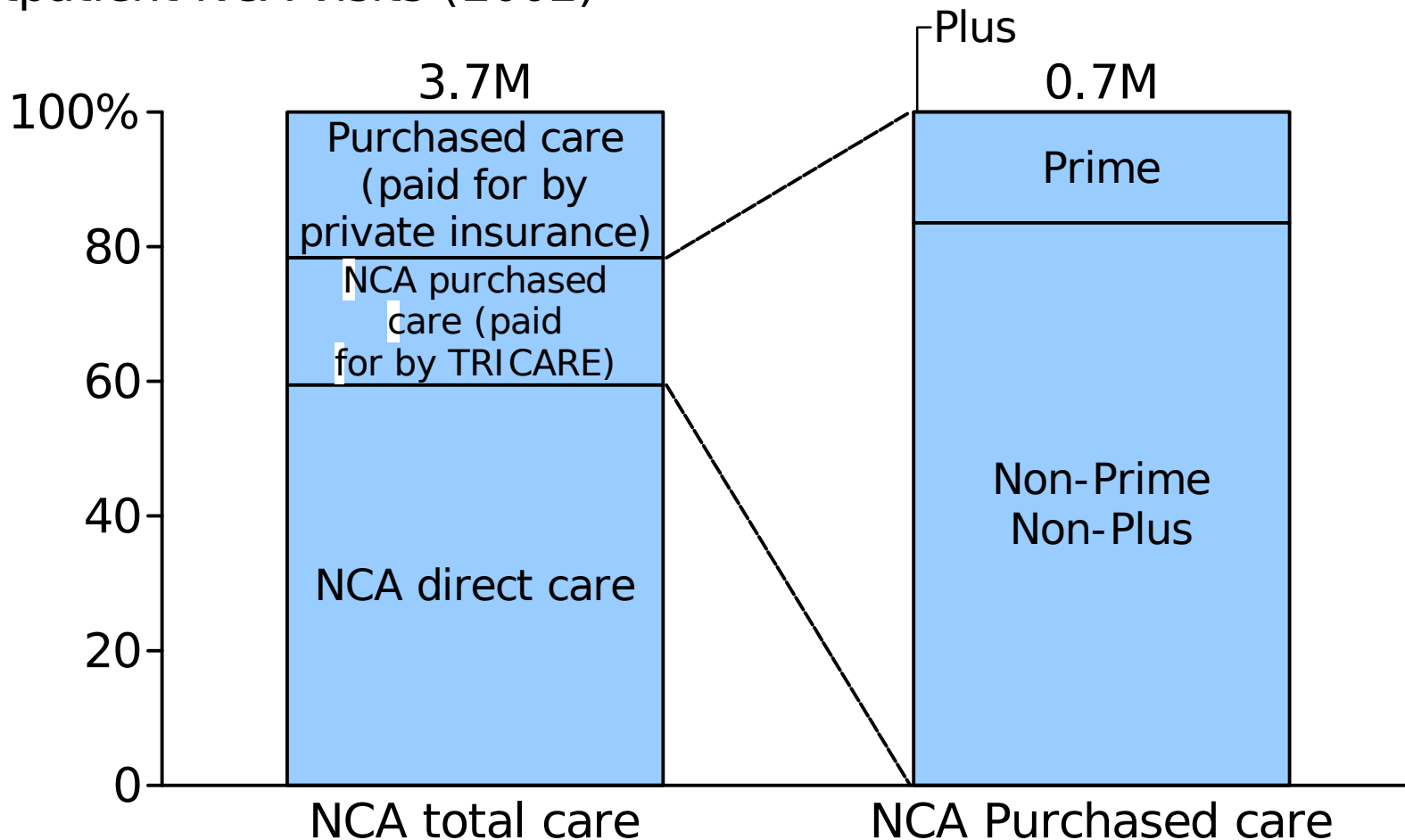
Note: Data corresponds to the 14 MTFs defined as being "in scope." Visits only include those in MEPRS "A" and "B" accounts. Visits exclude telcons and ambulatory procedure visits (APVs). Visits are adjusted to completion. Visits are for care delivered to both NCA and out of NCA patients.

Source: Cost data from MEPRS; Other data from FY02 SADR and SIDR Databases

# Less than 20% of NCA purchased care comes from Prime patients

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## Outpatient NCA visits (2002)



Note: Data corresponds to the 14 MTFs defined as being "in scope." Visits only include those in MEPRS "A" and "B" accounts. Visits exclude telcons and ambulatory procedure visits (APVs). Excludes care delivered to out of NCA patients.

Source: FY02 SADR; Tricare Lead Agent's Office

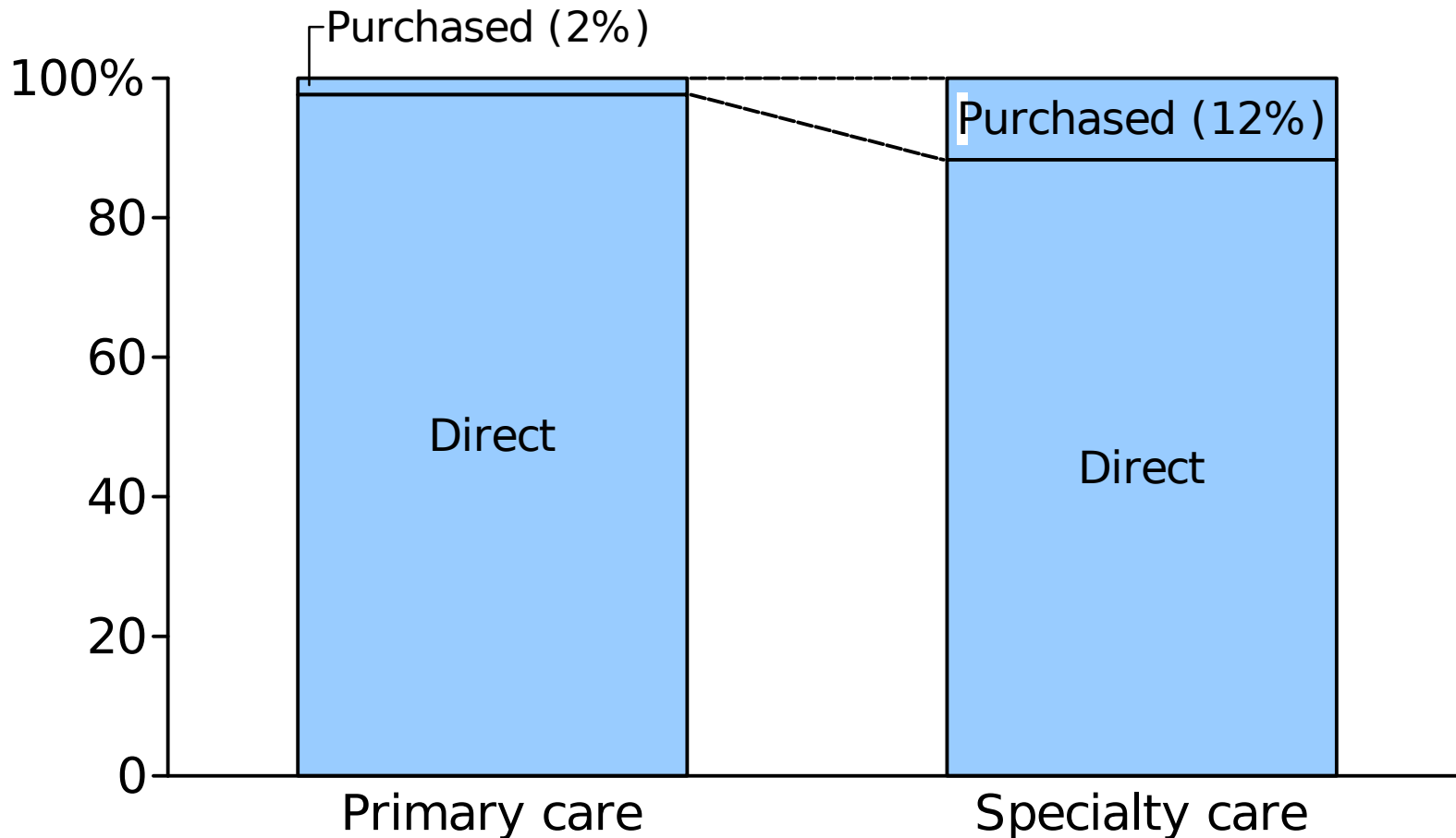
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**DOD 1**

# Prime patients are able to access the direct NCA system most of the time

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Percent of Prime visits



Note: NCA direct prime visits for 14 "in scope" MTFs from FY2002 SADR. Purchased care from FY02 HCSR-N..

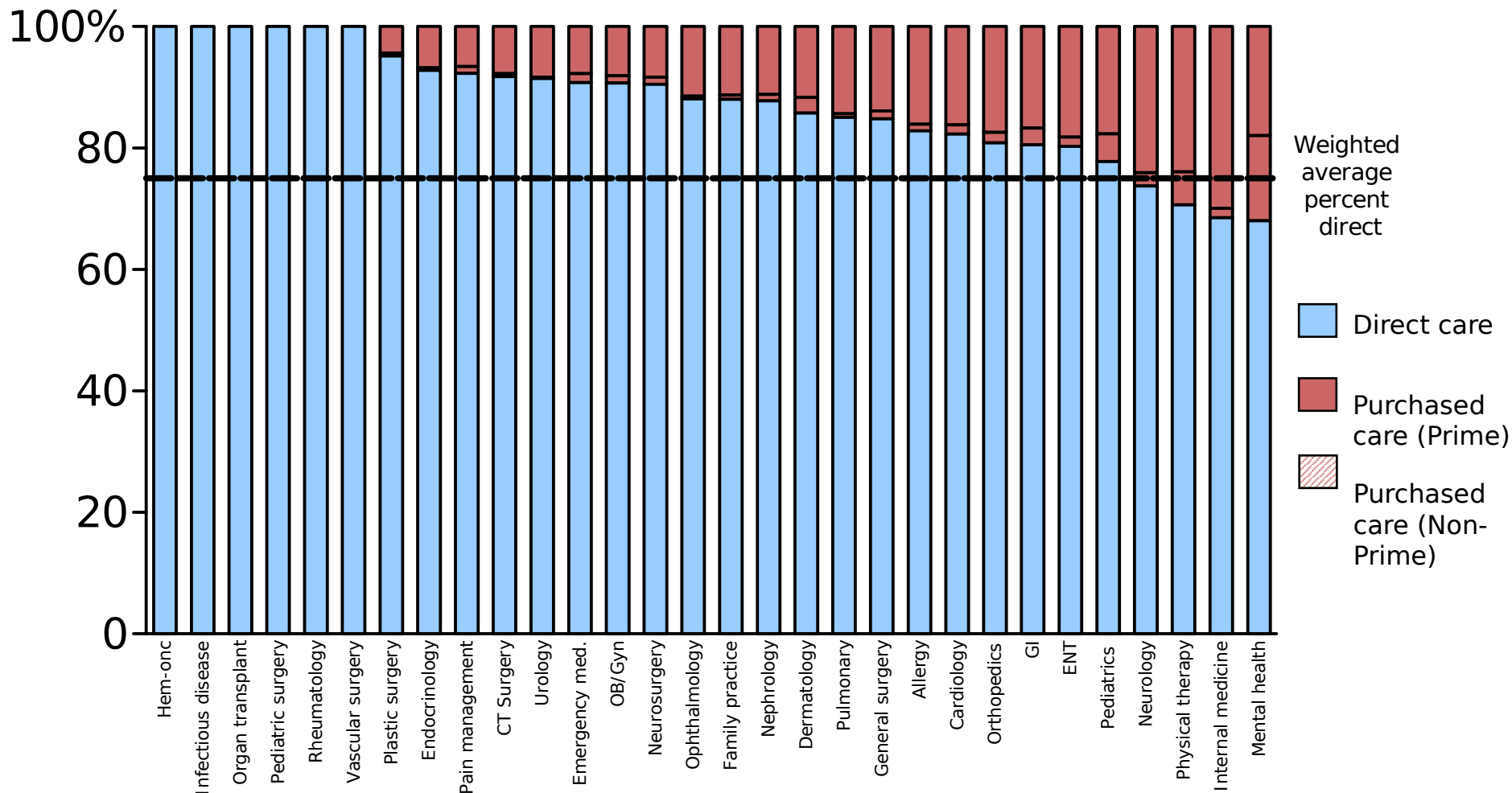
Source: Tricare Lead Agent's Office



# The split between NCA direct and purchased care varies by service line

Number of outpatient visits (2003E)

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Note: Market share based on 2000 analysis, and assumed to stay constant through 2003. Market share numerator is direct care outpatient visits and market share denominator is direct care plus purchased care visits; calculation excludes eligible NCA patients who do not use the MHS at all.

Source: Bristol Group; NCA Working Group

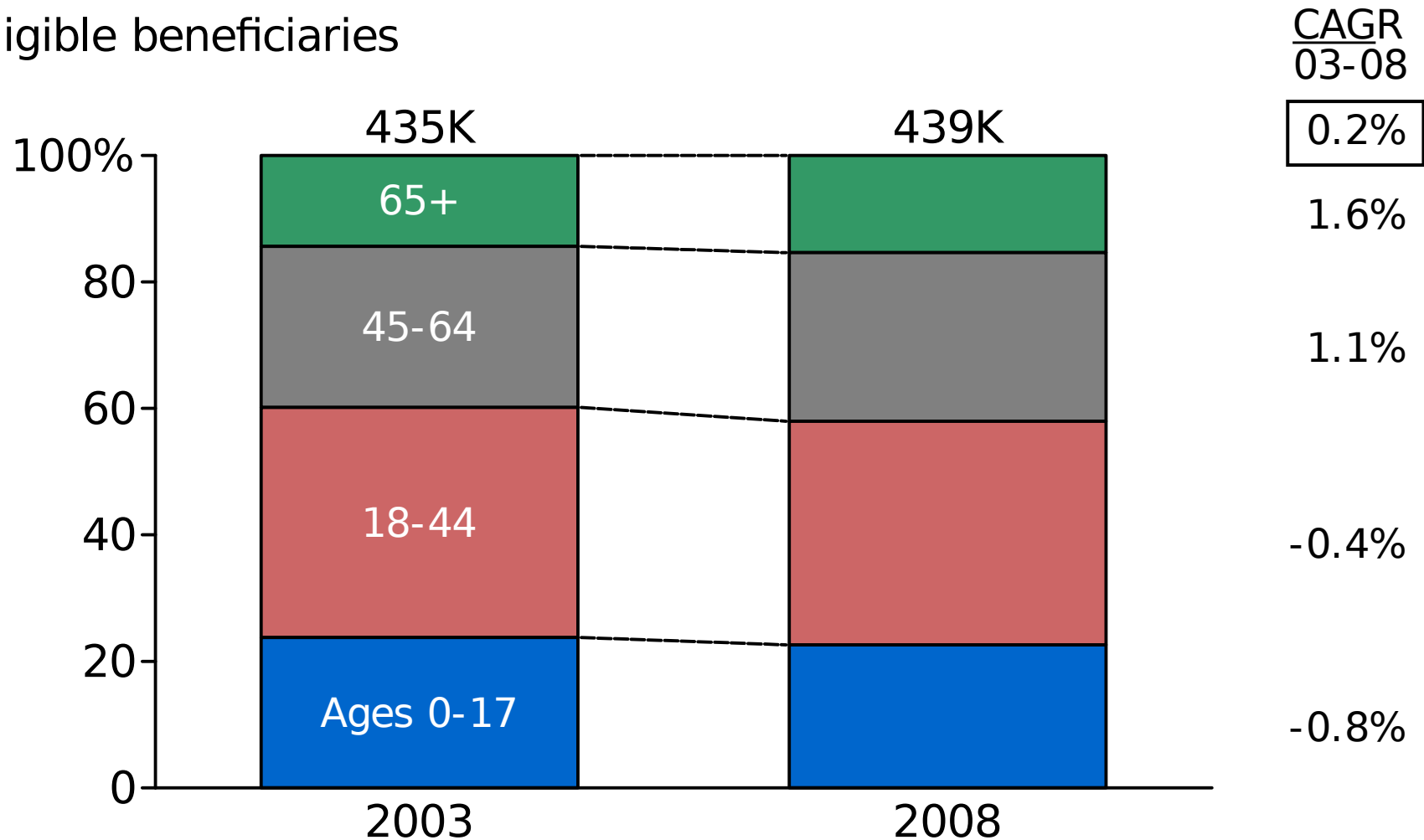
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**DOD 1**

# Population growth will not lead to fundamental shifts in demand

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Eligible beneficiaries



Source: Kennell and Associates; MCFAS (Managed Care Forecasting and Analysis System); Military Services (Active Duty Numbers); DOD Actuary (Retiree and Retiree Family Numbers)

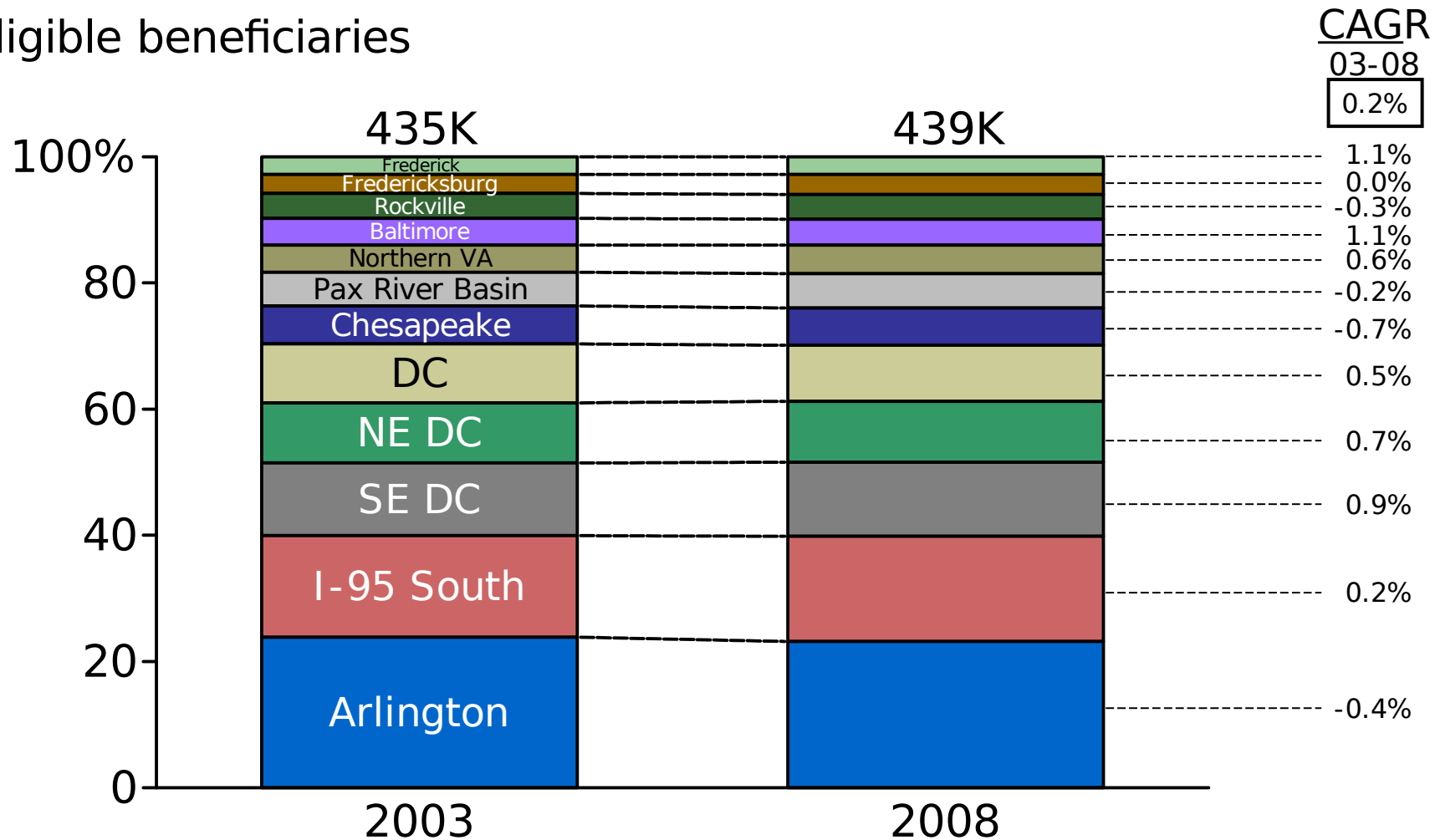
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**DOD 1**

# Regional demographics will also not lead to fundamental shifts in demand

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## Eligible beneficiaries



Source: Kennell and Associates; MCFAS (Managed Care Forecasting and Analysis System); Military Services (Active Duty Numbers); DOD Actuary (Retiree and Retiree Family Numbers)

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**DOD 1**

# Usage rates, however, will likely impact demand

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## Usage trends

- Outpatient visit demand for NCA direct care grew at 6.1% annually from 2000 to 2002
  - 2.3% of the growth was due to population growth
  - The remaining 3.8% represents usage growth
- We have modeled that demand will continue to grow above population rates (increased usage) from 2003 to 2008, but at a lower rate
  - 1.9% annual usage growth rate applied for 2003 to 2008

## Regulatory changes

- NAS: non-availability statement phase-out
  - OB/Gyn regulation will enable patients to use any outside service without financial penalty (only \$20)
  - Major impact modeled to impact OB/Gyn demand
  - 30% fewer OB/Gyn visits projected for 2008\*
- STS to COE transition: special treatment service programs are being eliminated
  - CT surgery and Neurosurgery will face the most significant demand decreases
  - CT surgery modeled to decrease by 18%\*\*
  - Neurosurgery modeled to decrease by 17%\*\*

Note: \* OB/Gyn demand decrease based on Bearing Point study findings. \*\* Estimates for CT surgery and Neurosurgery demand decreases based on loss of ONCA care as follows: demand generated from patients living from 41-100 miles from MTF decreased by 50%; for patient living more than 100 miles from MTF, 75% of demand was estimated to be lost.

Source: Bearing Point Study; Kennell and Associates; NCA Working Group

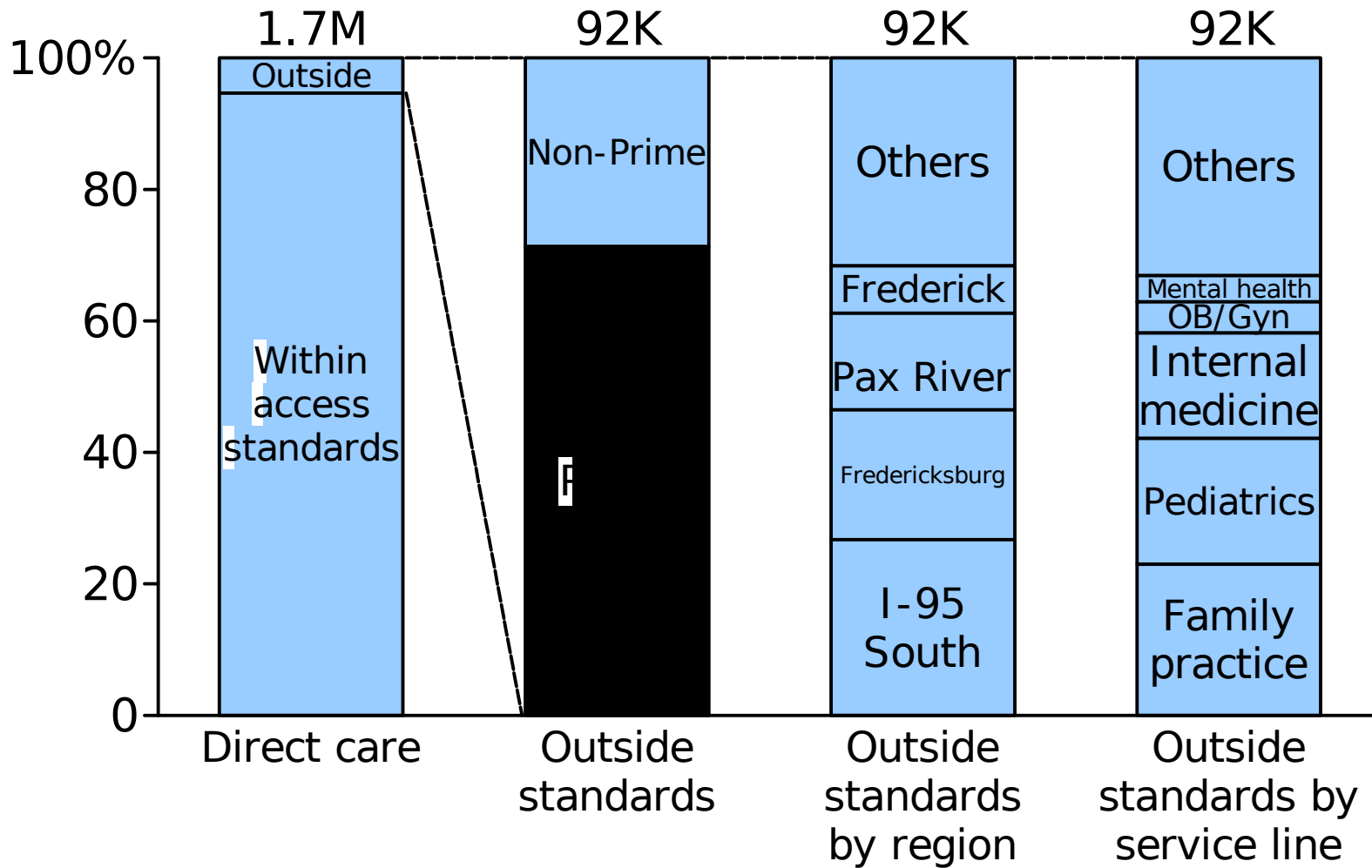
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**DOD 2**

# 95% of direct care in the NCA is delivered within existing distance access standards

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Percent of outpatient visits (2002)



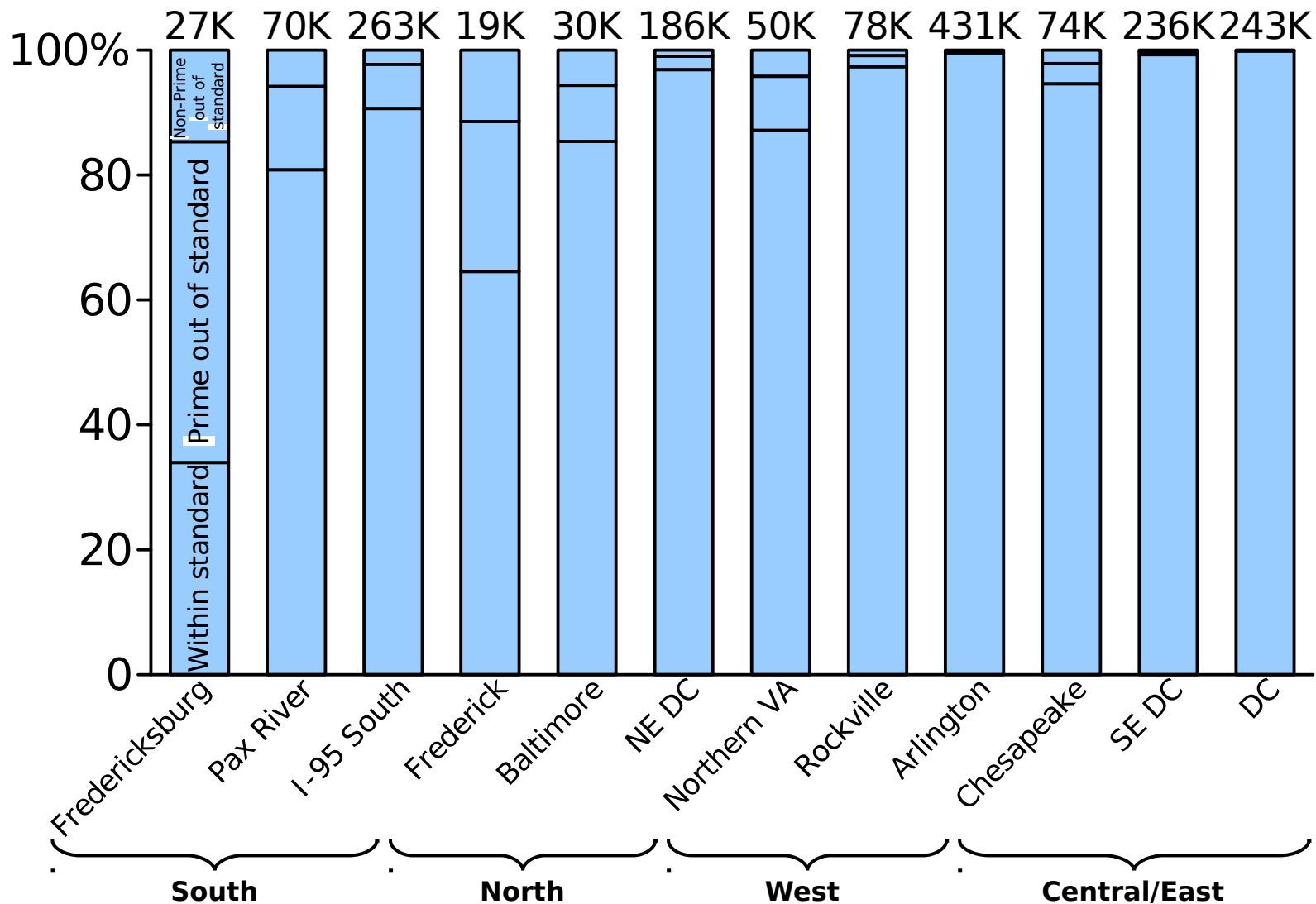
Note: Data includes INCA direct care visits only for service lines and MTFs classified as "in scope" for the Bain analysis. Primary care access standards are 20 miles and include family practice, internal medicine and pediatrics. Specialty care includes all other 27 in-scope service lines and access standards are defined as being within 40 miles of the patient. Telcons and APV's not included.

Source: FY02 SADR; MapInfo

# Southern regions are the most affected by the current distribution of providers

Percent of direct care outpatient visits (2002)

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Note: Primary care access standards are 20 miles and include family practice, internal medicine and pediatrics. Specialty care includes all other 27 in-scope service lines and access standards are defined as being within 40 miles of the patient. Prime reflects AD and ADFM prime.

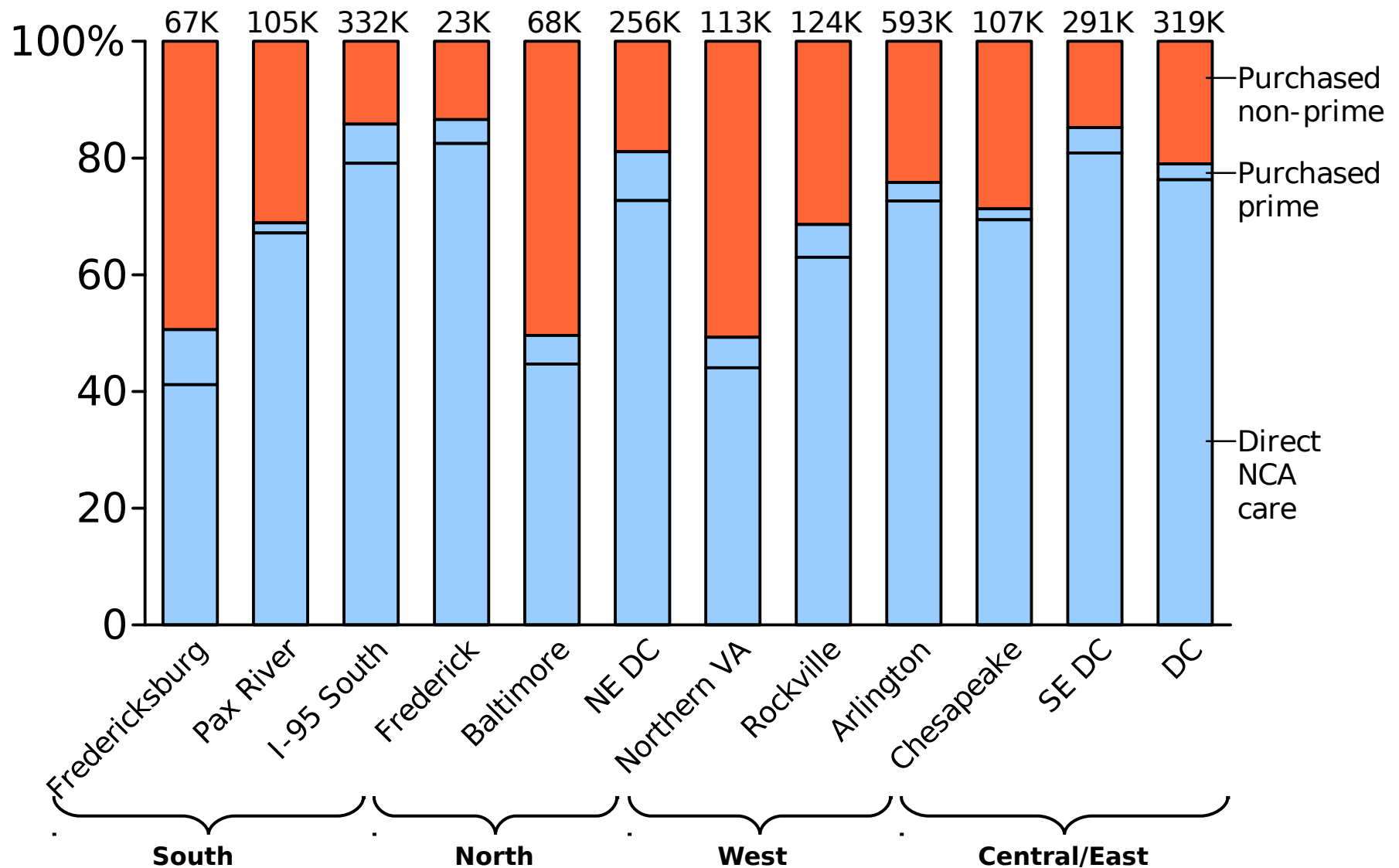
Source: FY02 SADR; MapInfo

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# Purchased versus direct care is more evenly distributed between South, North, West and Central/East

Percent of outpatient visits

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Source: FY02 SADR; Tricare Lead Agent's Office

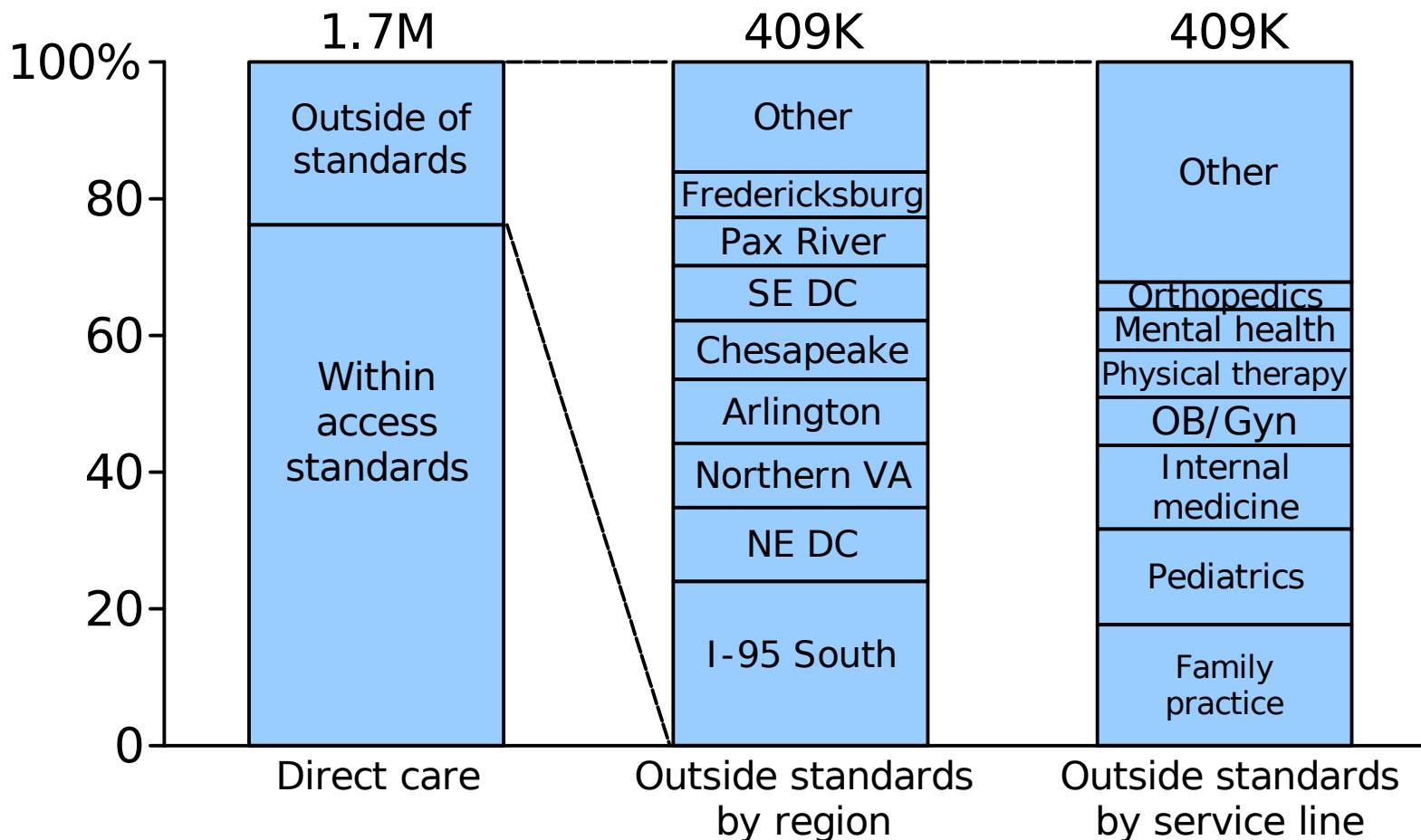
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**DOD 2**

# Even applying 10 and 20 mile access standards to primary and specialty care in the NCA, only 24% of

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Percent of outpatient visits (2002)



Note: Data include INCA direct care visits only for service lines and MTFs classified as "in scope" for the Bain analysis. Primary care access standards are 10 miles and include family practice, internal medicine and pediatrics. Specialty care includes all other 27 in-scope service lines and access standards are defined as being within 20 miles of the patient.

Source: FY02 SADR; MapInfo

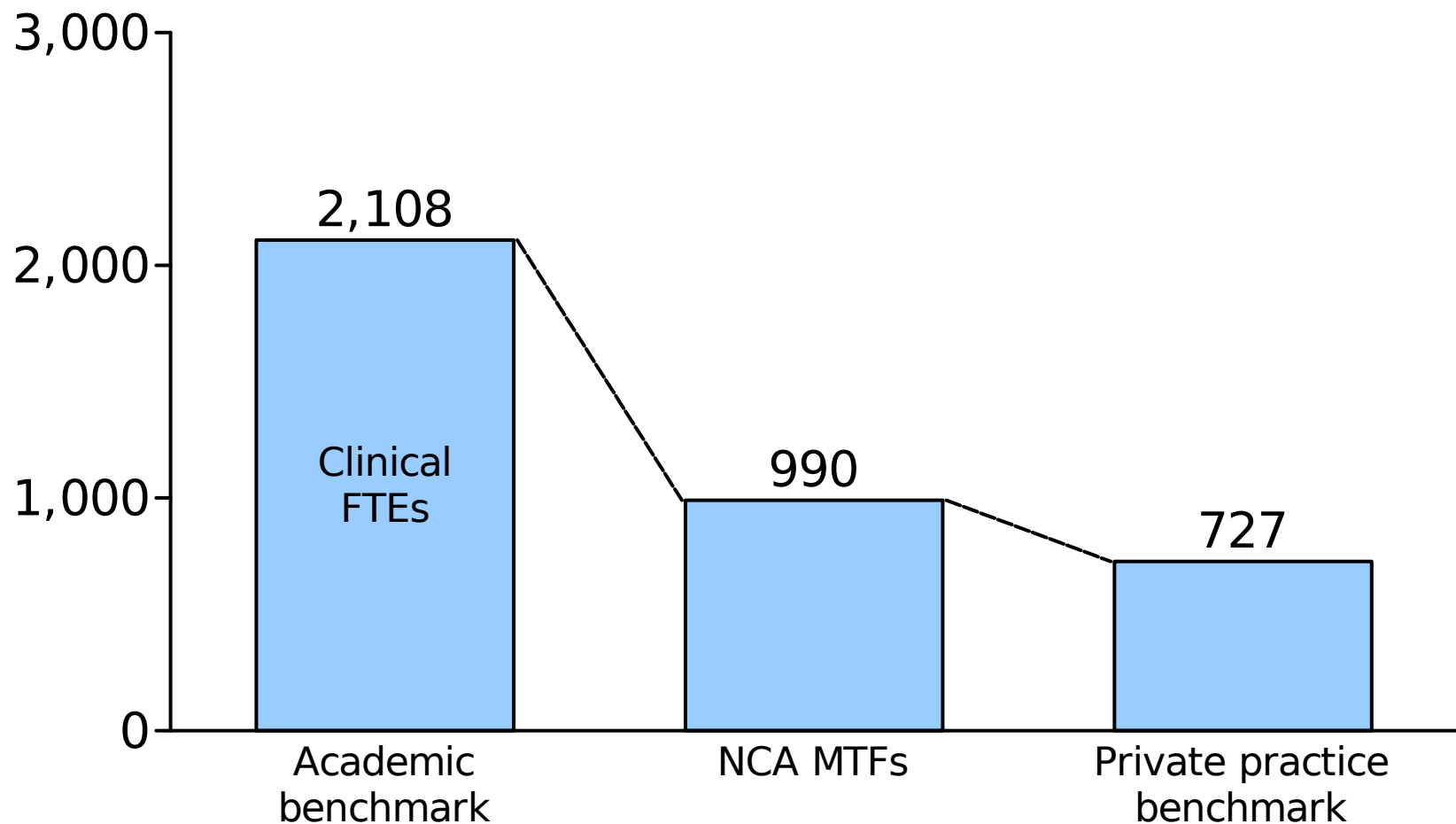
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# Overall provider productivity is within civilian benchmarks

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Clinical FTE providers required to serve 2003E demand



Note: Provider productivity is based on outpatient visits benchmarks. "Clinical FTEs" includes time for administrative tasks. FTE providers include physicians, residents, fellows and non-physician providers.

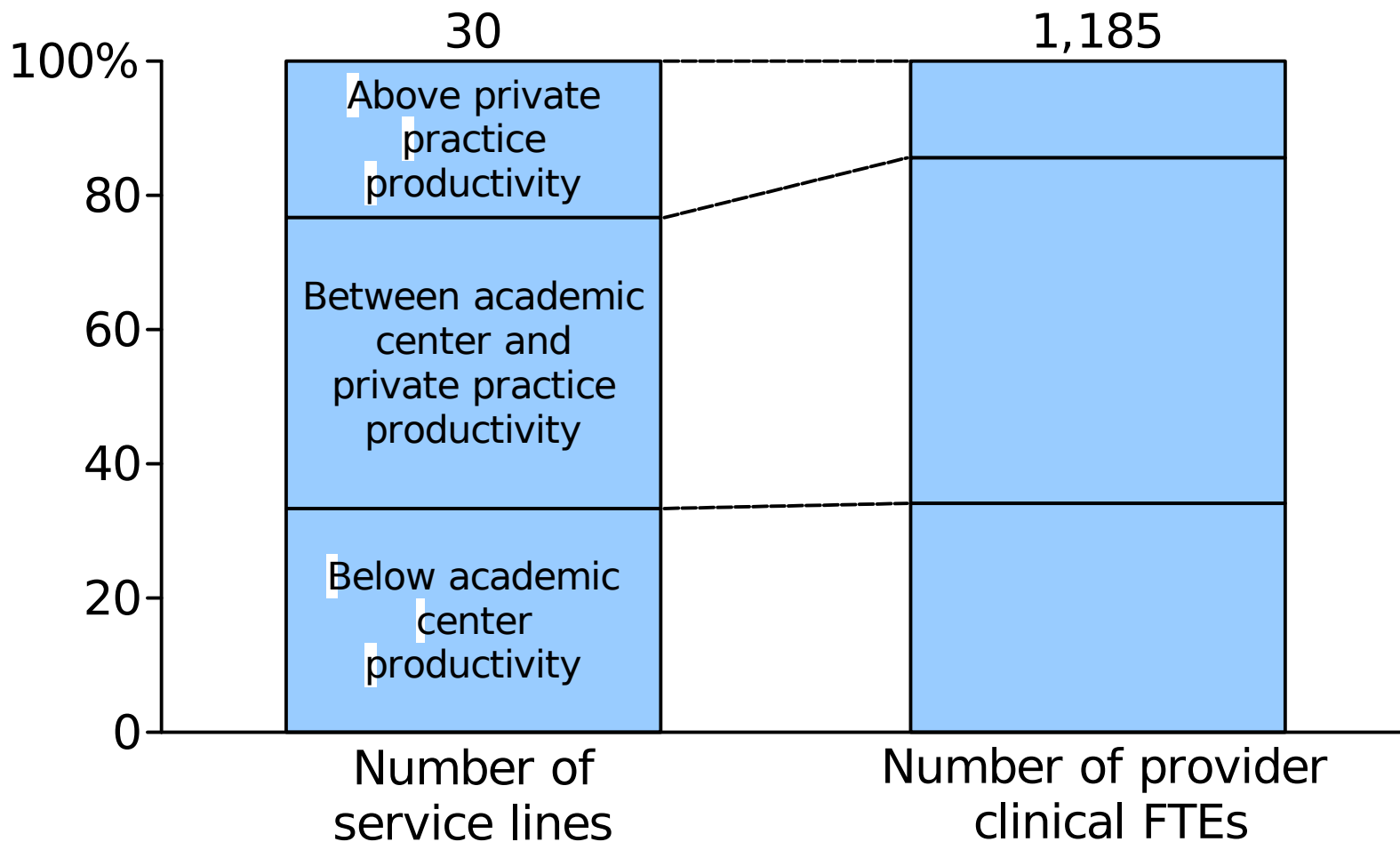
Source: MGMA; Bain Manpower Survey; NCA Working Group

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# Productivity versus the academic and private care benchmarks varies dramatically by service line

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Percent of total (2003E)



Source: MGMA; Bain Manpower Survey; NCA Working Group; Bain Staffing Model

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**DOD 2**

# Inpatient productivity analyses could not be conducted because required data is not available at MCA MTFs

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## Observations

- Coding for inpatient services is either not completed, not accurate and/or not translatable into RVUs
- A recent WRAMC study showed that the lack of accuracy of internal data makes it very difficult to make productivity comparisons with the civilian sector
  - Patient encounters are sometimes not coded or coded incorrectly
  - Fidelity of data transfer from ADS/ADM to M2 is not accurate
  - Entry of provider clinical time into UCAPERS is often not accurate
  - Fidelity of data transfer from UCAPERS to EAS IV is not accurate

## Recommendations

- Implement inpatient CPT coding records and tracking to enable RVU calculations to be performed
- Improve processes, compliance mechanisms, training, and incentives to generate accurate coding and clinical time entries at the MTFs
- Work with AMEDD to identify issues in fidelity of data transfer and implement key changes to correct these

# Academic physician RVU benchmarks from MGMA (1 of 2)

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Clinical service line	Mean RVUs/Provider/Year	Median RVUs/Provider/Year
• Allergy	• 3,196	• 2,518
• Cardiovascular Surgery	• 7,414	• 6,528
• Cardiology (invasive)	• 6,267	• 5,647
• Cardiology (noninvasive)	• 5,067	• 4,982
• Dermatology	• 4,938	• 4,729
• Endocrinology	• 2,962	• 2,692
• ENT	• 6,577	• 6,424
• Family practice (with OB)*	• 4,361	• 4,169
• Family practice (without OB)*	• 3,980	• 3,892
• GI	• 7,149	• 6,288
• General surgery	• 5,678	• 5,851
• Hematology/Oncology	• 3,321	• 3,215
• Infectious disease	• 2,165	• 2,295
• Psychiatry*	• 3,591	• 3,309
• Nephrology	• 5,116	• 4,153
• Neurology	• 4,449	• 4,230

Note: \*Benchmark is for private practice physician, as academic benchmark not available.

Source: Medical Group Management Association's "Academic Practice Compensation and Production Survey, 2003 Report based on 2002 Data."

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**DOD 2**

# Academic physician RVU benchmarks from MGMA (2 of 2)

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Clinical service line	Mean RVUs/Provider/Year	Median RVUs/Provider/Year
• Neurosurgery	• 8,738	• 8,298
• OB/Gyn	• 6,996	• 6,576
• Ophthalmology	• 4,945	• 4,886
• Organ transplant	• 6,906	• 6,379
• Orthopedic surgery*	• 7,366	• 6,972
• Pediatrics	• 2,831	• 2,625
• Plastic surgery	• 9,073	• 8,584
• Physical medicine and rehabilitation	• 4,819	• 4,627
• Pulmonary	• 4,720	• 4,441
• Rheumatology	• 2,776	• 2,891
• Urology	• 6,460	• 6,543
• Vascular surgery	• 6,483	• 6,399

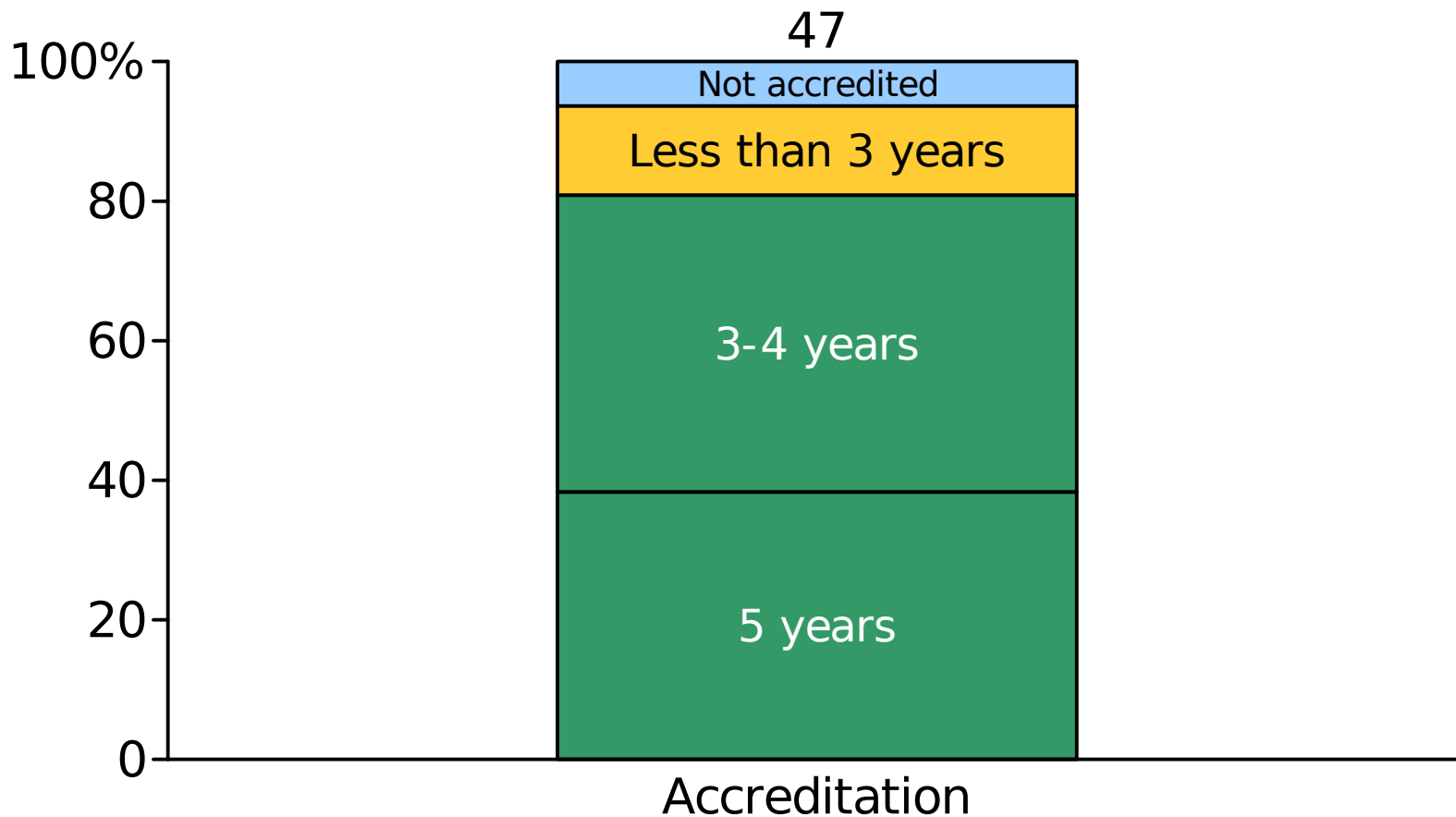
Note: \*Benchmark is for private practice physician, as academic benchmark not available.

Source: Medical Group Management Association's "Academic Practice Compensation and Production Survey, 2003 Report based on 2002 Data."

# GME program accreditation levels reflect the high quality of the NCA programs

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Percent of NCA GME programs



Note: Does not include all programs, as accreditation data were not provided for several programs.

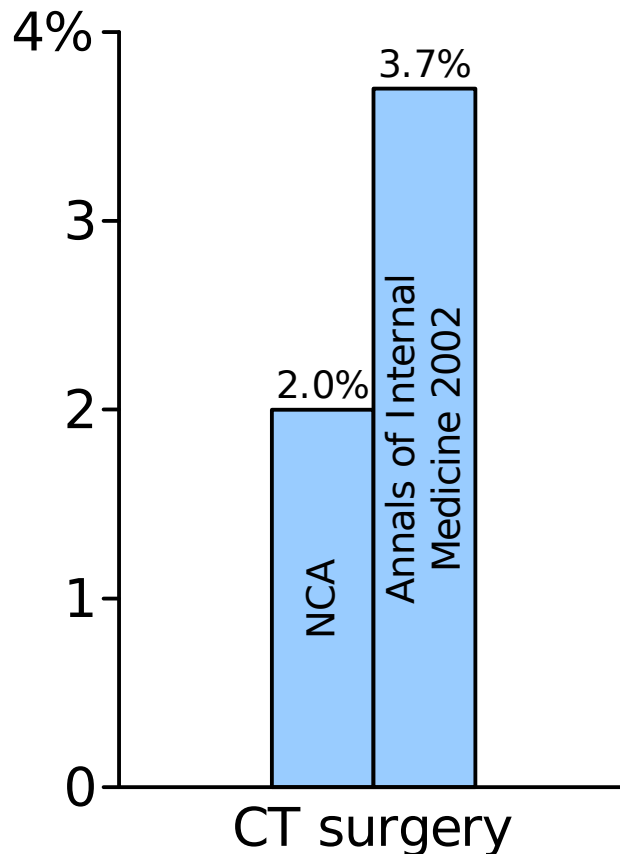
Source: GME Annual Report 2003

# The NCA MHS delivers excellent care based on clinical outcomes

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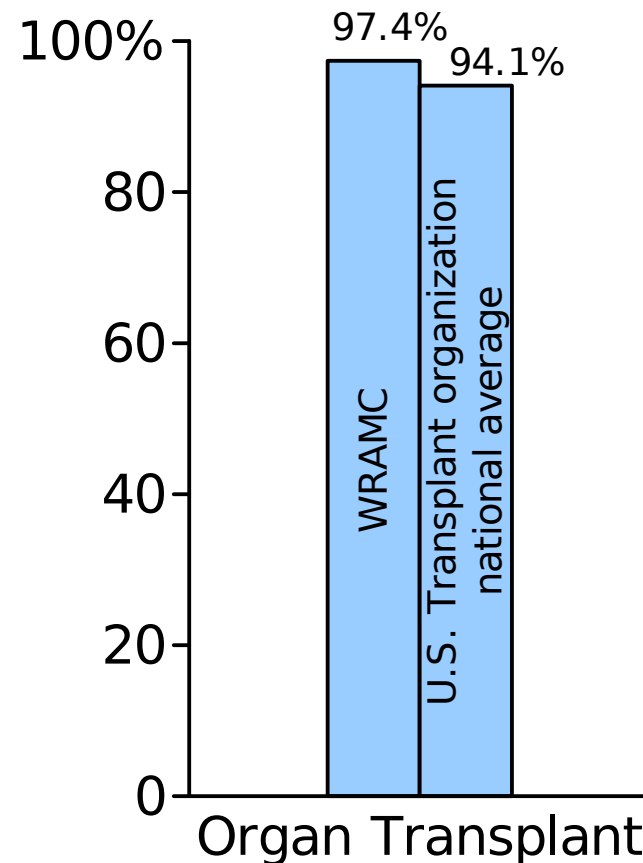
## Example I

Mortality rate for CABG and redo CABG



## Example II

Percent survival at 1 year of kidney transplant patients



Note: No additional quality data was provided to Bain due to confidentiality restrictions.

Source: Working Group Briefings; Annals of Internal Medicine 2002; 137:511-520; [www.USTransplant.org](http://www.USTransplant.org)

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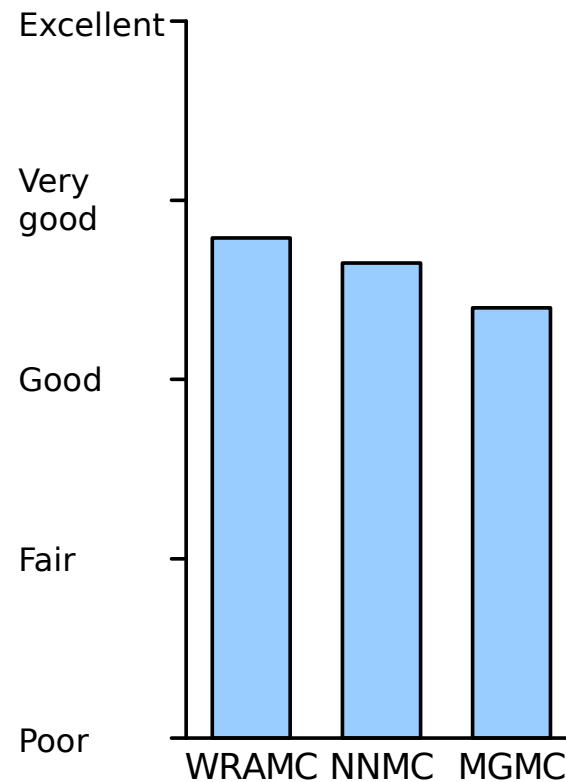
# Patient satisfaction is generally high for medical care; it is somewhat lower for access metrics

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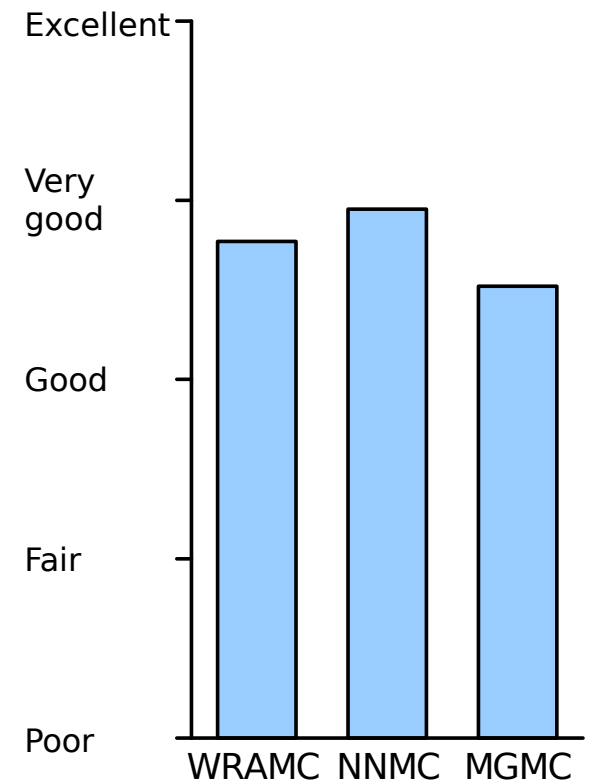
Satisfaction with medical care



Ease of making appointments by phone



Access to medical care when needed



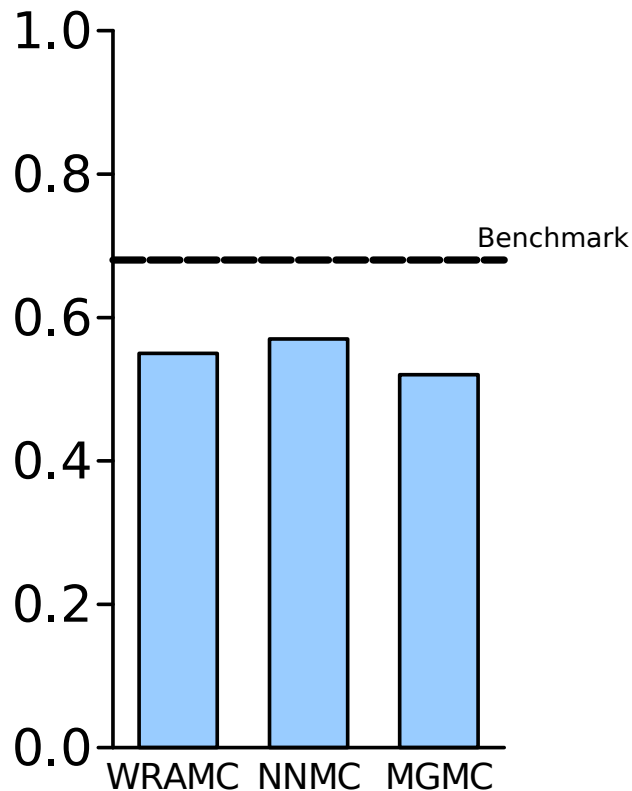
Note: Results are the weighted average of responses in FY '02.  
Source: CSS Survey -DD-HA(M)2016



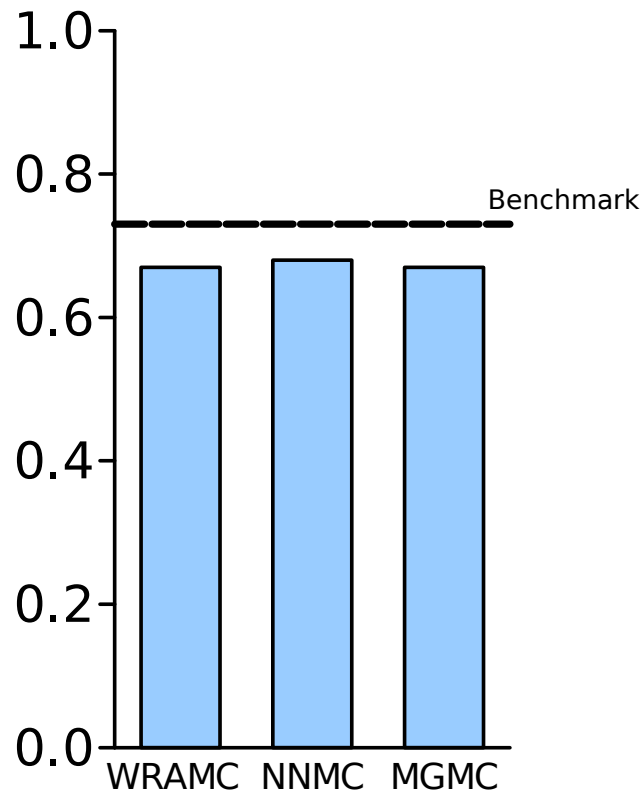
# Prime enrollee access and satisfaction ratings lag civilian benchmarks

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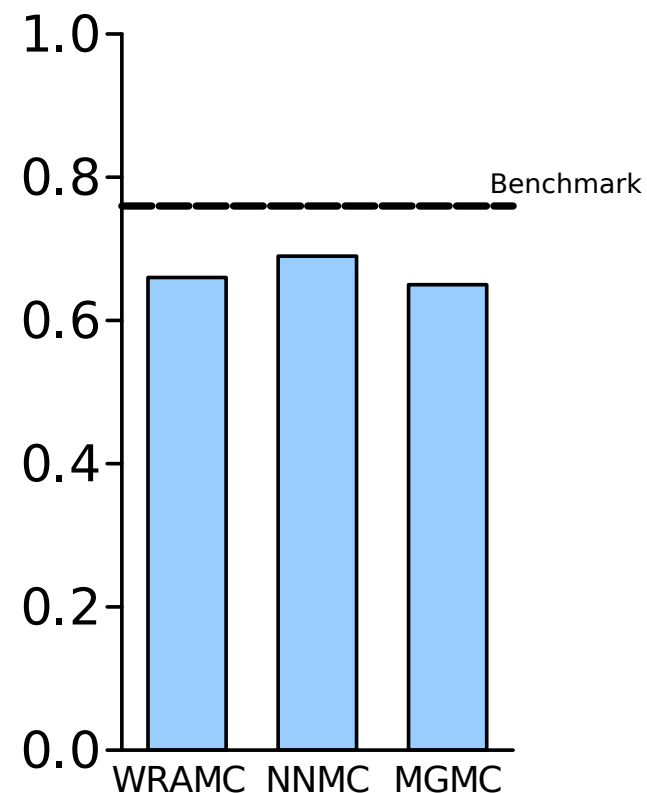
Healthcare satisfaction index (2002 mean)



Access: getting "needed care" index (2002 mean)



Access: getting "needed care" quickly index (2002 mean)



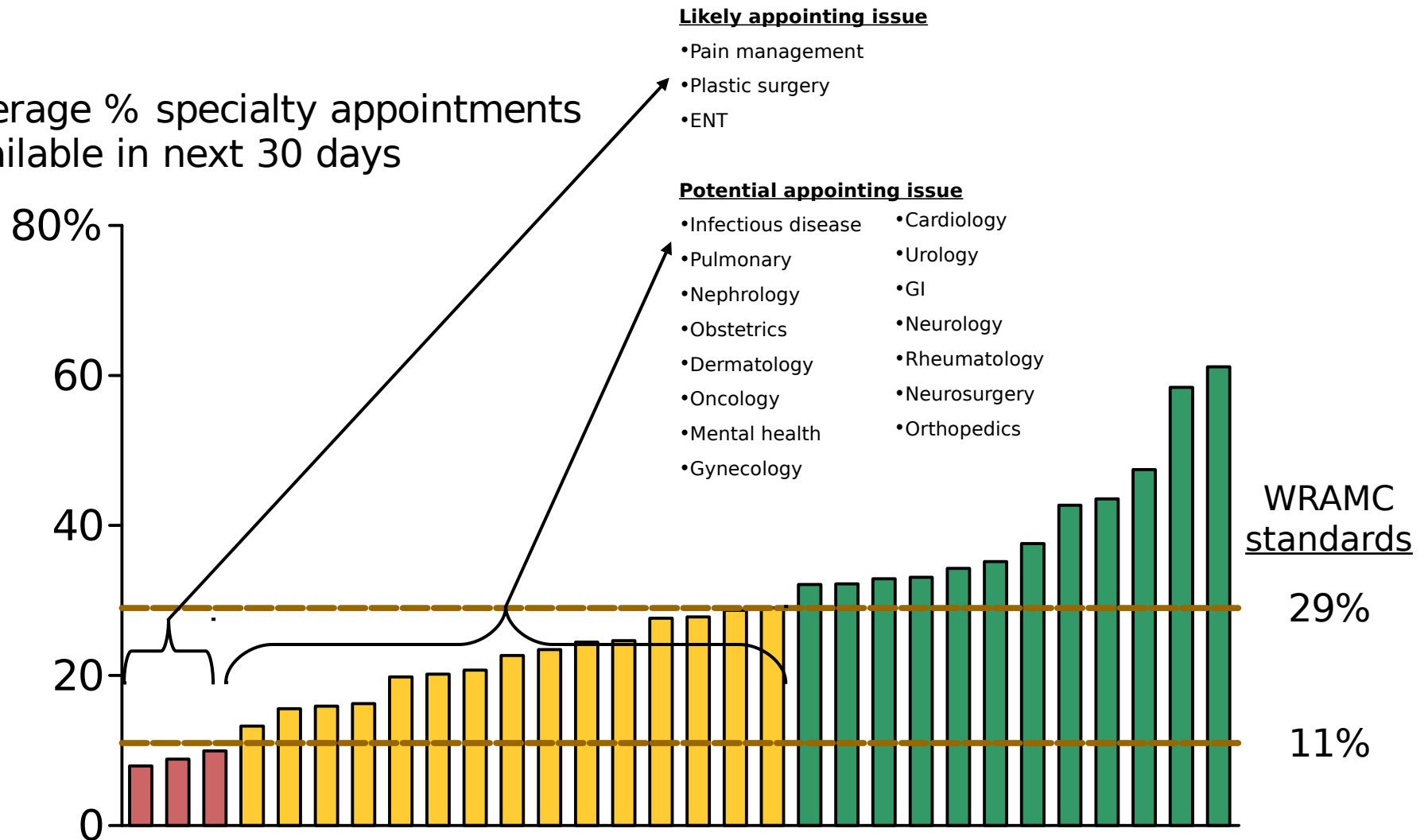
Note: Benchmark is CAHPS' NCBD 2001 Benchmark.

Source: 2002 Health Care Survey of DOD Beneficiaries; Tricare Website

# The NCA MHS should consider optimizing the appointing process to increase the number of open

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Average % specialty appointments available in next 30 days



Note: Statistics are averages of daily 30 day "SPEC" appointment availability from April 02 to May 03. "SPEC" refers to appointments for first-time referrals. Values are averages across MTFs weighted by the total number of specialty appointments.

Source: NCA Working Group

**DOD 3**

# Agenda

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- NCA MHS findings
- Optimization vision for the NCA MHS
- Other considerations
- Short-term initiatives detail
- Detailed methodology

# Recommendation 1: Optimize mix of providers across clinical service lines

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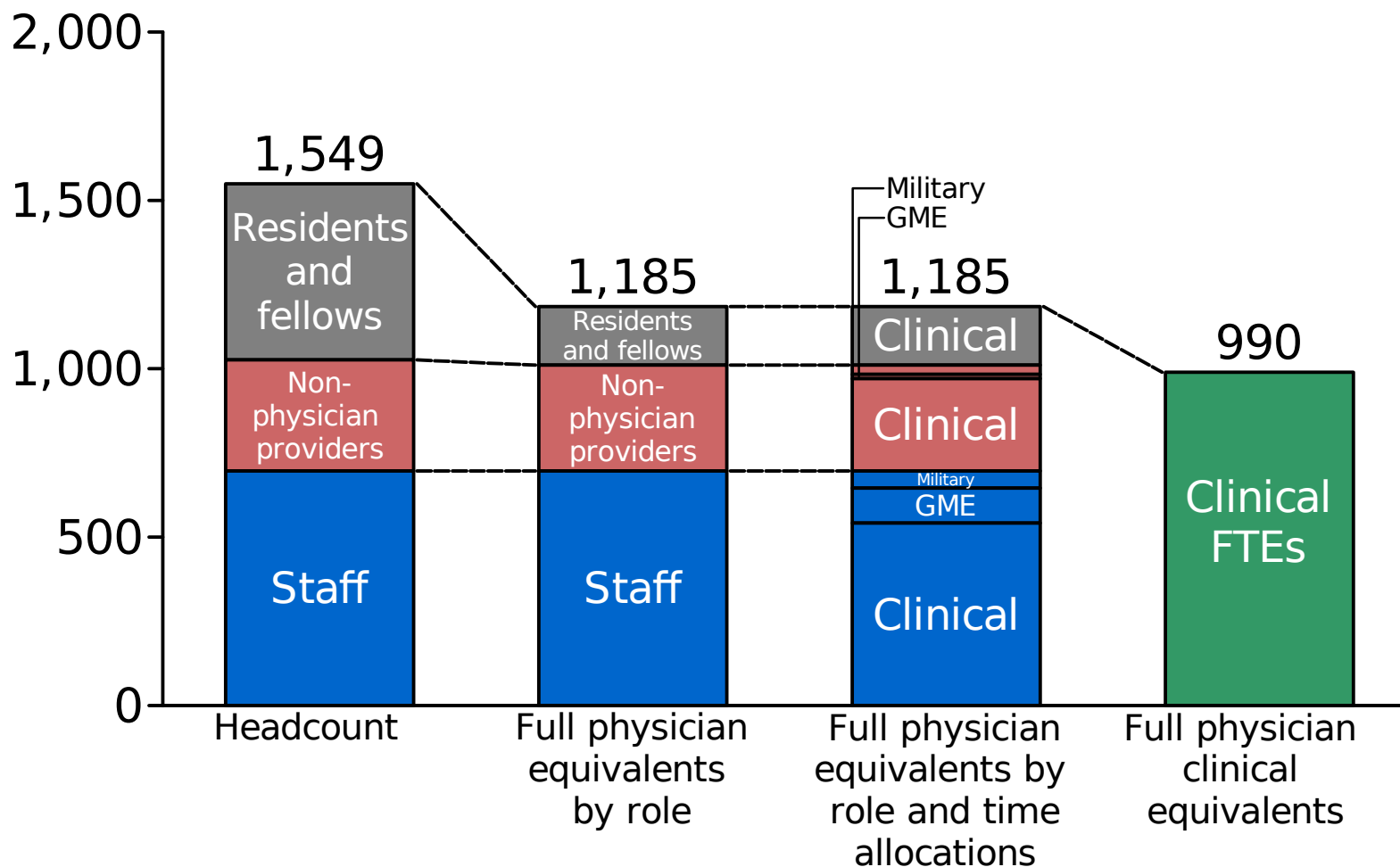
- There are nine clinical service lines with provider productivity below academic benchmarks
  - These lines include OB/Gyn, Endocrinology, Pediatric surgery, Organ transplant, General surgery, Neurology, GI, Pediatric sub-specialties, and Pulmonary
  - OB/Gyn's productivity will likely worsen with the loss of demand due to the NAS phase out
  - Together, these lines have an excess of 60 FTE providers, over and above academic benchmarks
    - There is not enough Prime purchased care to sustain these provider staffing levels at academic productivity levels
    - These lines require a full diagnostic to evaluate what actions are necessary
- Excess providers can be reallocated geographically (ONCA) or, alternatively, these positions can be used to add providers to other clinical service lines in the NCA
- Provider numbers should not be reduced in General surgery, based on readiness constraints
- 2008 demand forecasts similarly suggest a focus to improve productivity for the aforementioned service lines

**DOD 3**

# The NCA has 1,549 provider personnel, 1,185 physician equivalents, and 990 clinical FTEs

**DRAFT**

NCA MTF providers (2003E)



Note: Only clinically active physicians within the 30 service lines assessed are included. "Clinical equivalents" includes time spent on administrative duties - both for the NCA and the MGMA benchmarks.

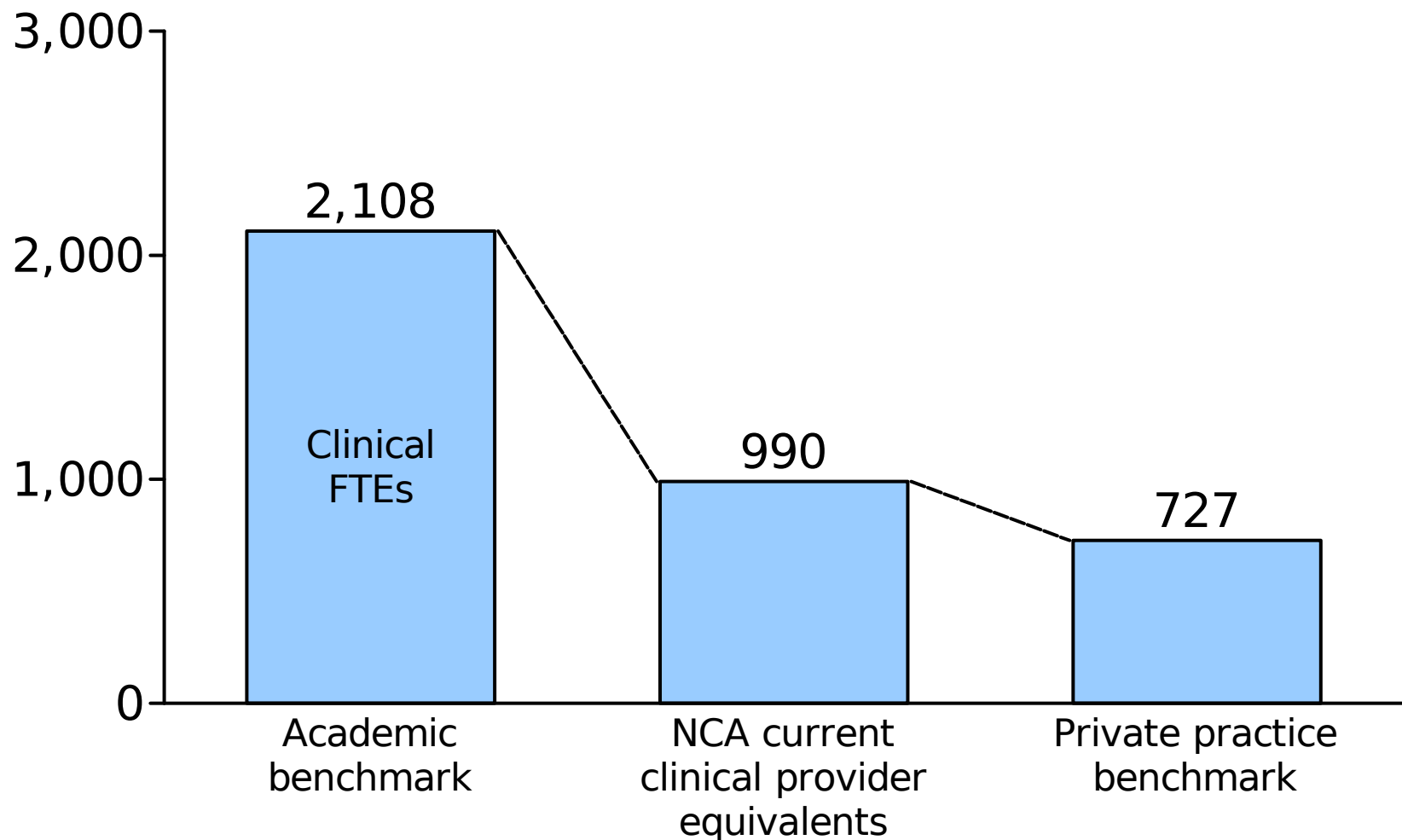
Source: MGMA; Bain Manpower Survey; NCA Working Group

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# Overall provider productivity for the NCA MHS is within civilian benchmarks

**DRAFT**

Clinical FTE providers required to serve 2003E demand



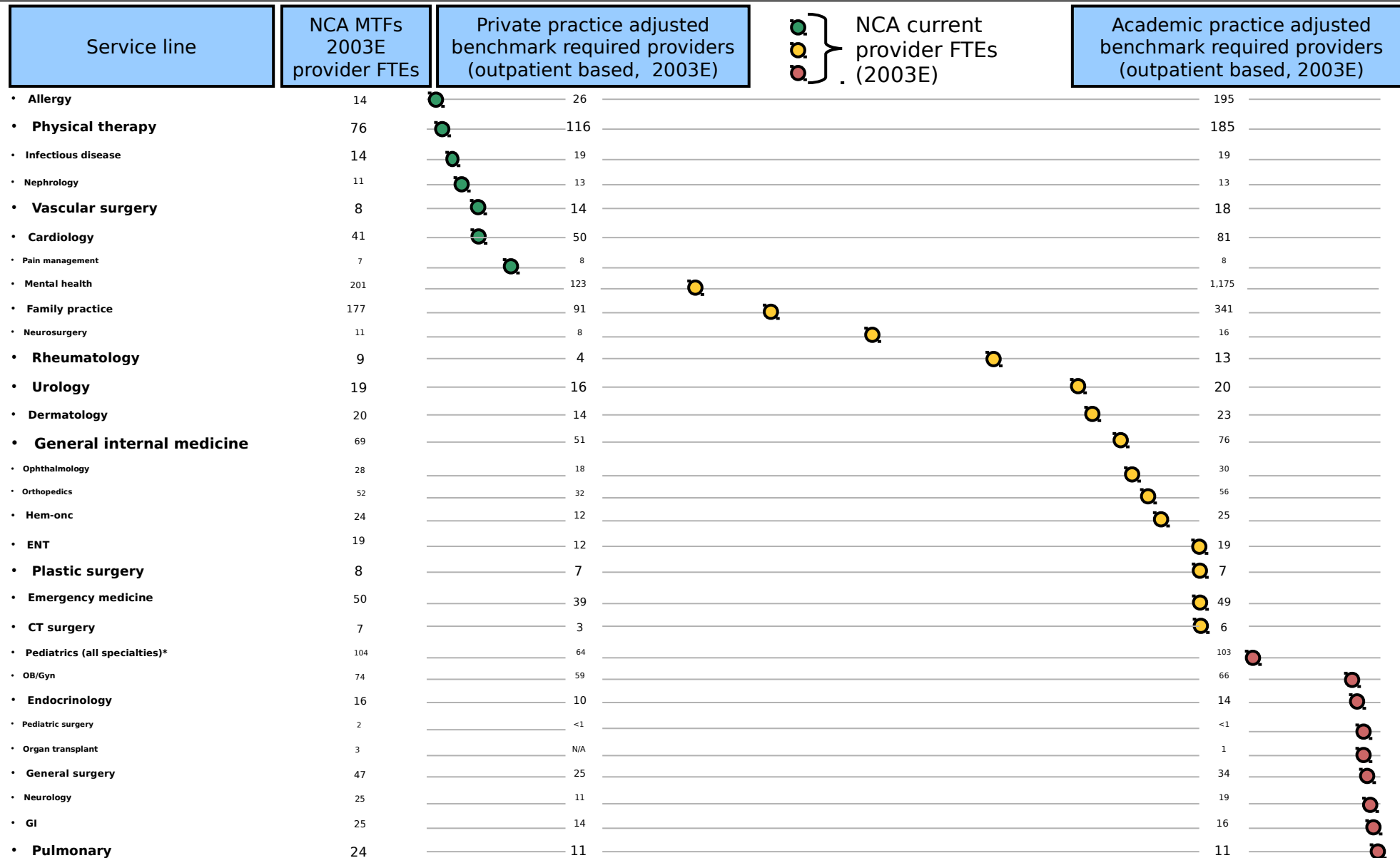
Note: Provider productivity is based on outpatient visits benchmarks. "Clinical FTEs" includes time for administrative tasks. FTE providers include physicians, residents, fellows and non-physician providers.

Source: MGMA; Bain Manpower Survey; NCA Working Group

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# Nine service lines have productivity levels below academic benchmark standards

**DRAFT**



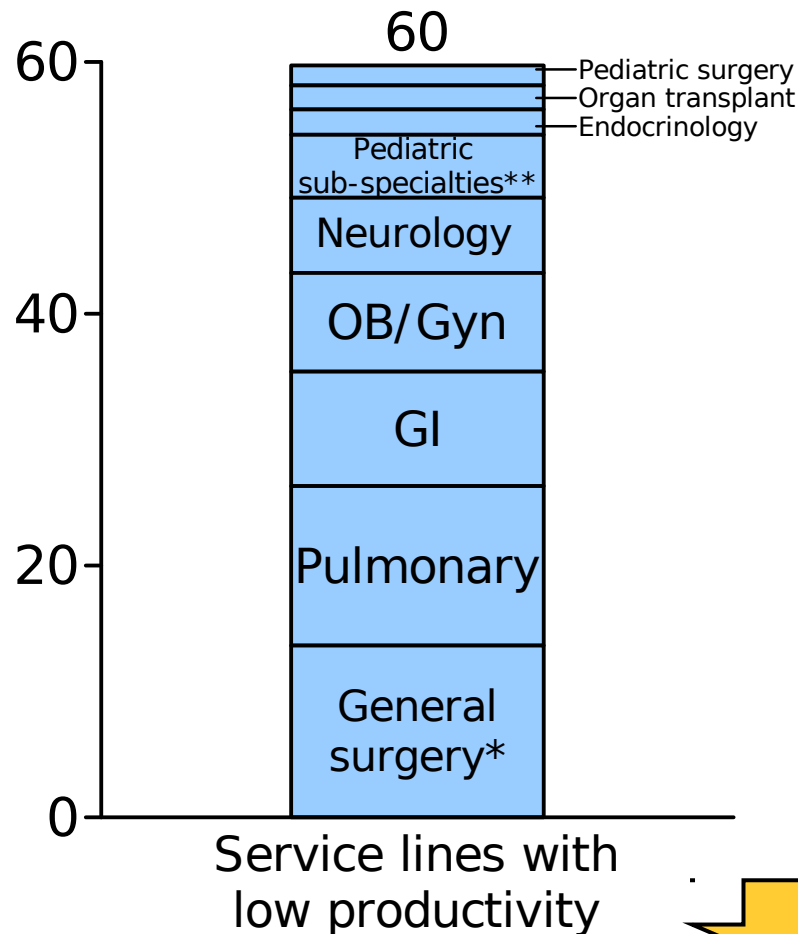
Note: Provider productivity based on outpatient visit benchmarks. Where private practice productivity was lower than academic, private practice was set equal to the academic benchmark. Where benchmarks differed from actual by <1 provider, the line was classified in the more productive category. \*Pediatrics is classified as yellow for general peds and as red for pediatric sub-specialties. Source: Bristol Group; MGMA; Bain Manpower Survey

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**DOD 3**

# Together, these service lines have an excess of 60 FTE providers, over and above academic benchmarks

Surplus providers in excess of academic benchmark  
(2003E FTEs)



Lines more productive than academic benchmarks that you may want to run closer to private practice productivity benchmarks

- Dermatology (6)
- Emergency medicine (11)
- Family practice (86)
- General pediatrics (35)
- Mental health (78)
- Ophthalmology (10)

( ) represents surplus 2003 provider FTEs in excess of private practice benchmarks

**These lines should be subjected to a planning diagnostic to assess opportunities for improvement**

Note: \*May not be able to reduce due to readiness constraints. Low productivity lines are defined as those that have productivity below the applicable academic benchmark. \*\*Analysis for pediatric sub-specialties comes from business planning section (Recommendation 3)

Source: Bristol Group; MGMA; Bain Manpower Survey

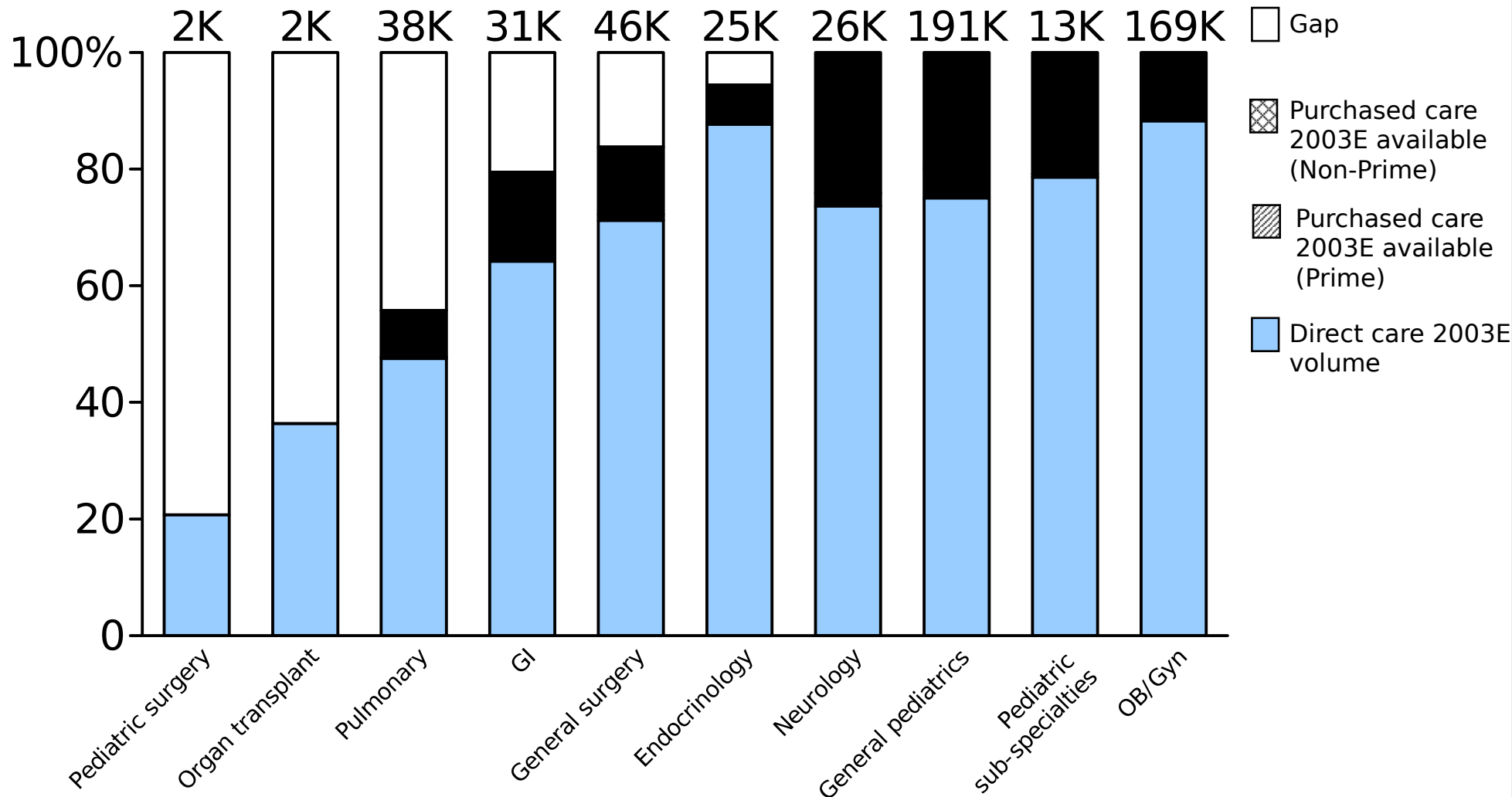
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# Though some purchased care recapture is available to improve provider productivity, it will not be enough in most

**DRAFT**

Volume required to achieve  
adjusted academic benchmark



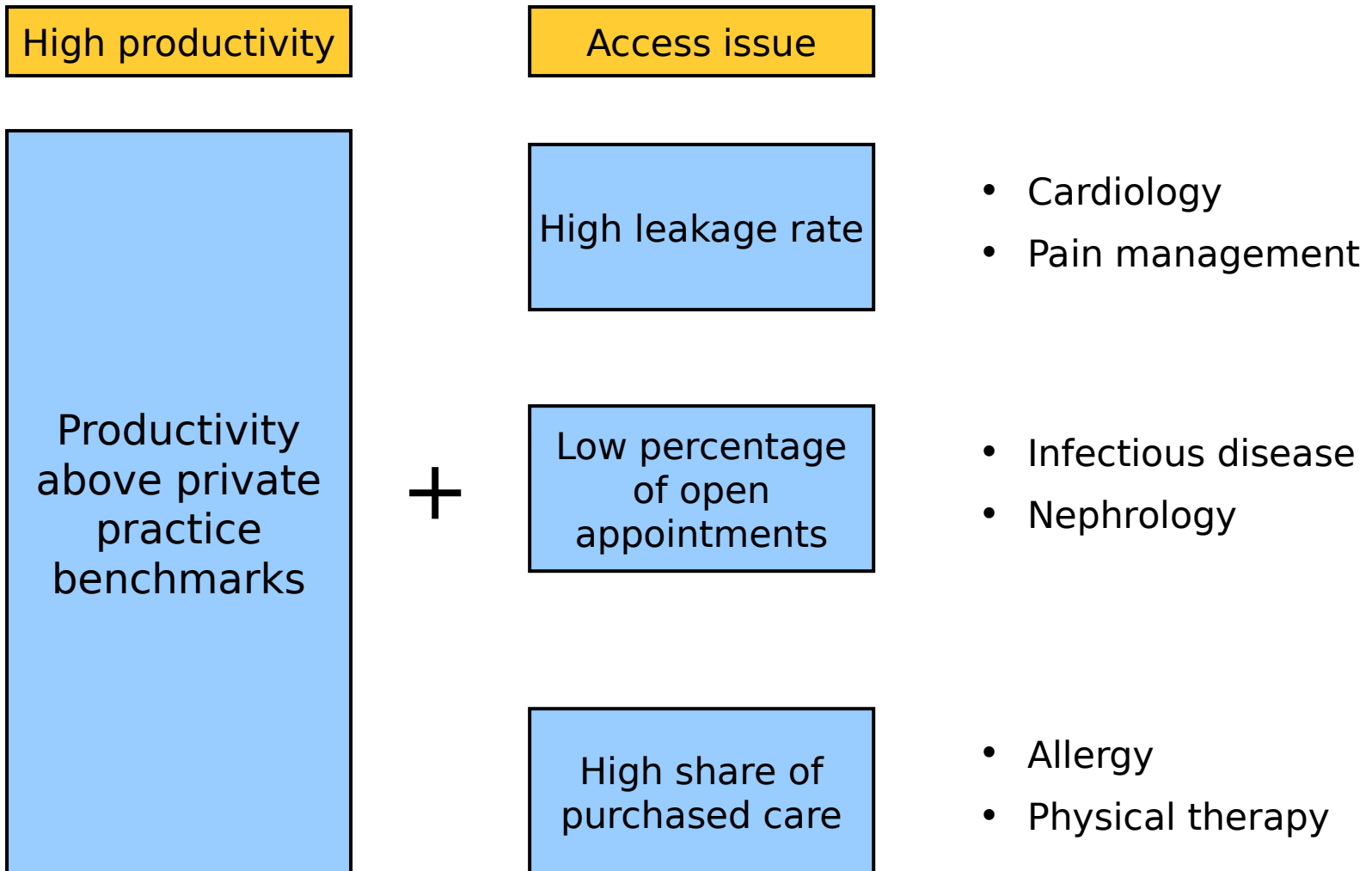
Note: Pediatrics market share analysis assumes that the distribution of purchased care is the same as that of direct care for both general pediatrics and pediatric sub-specialties.

Source: Bristol Group; MGMA; Bain Manpower Survey

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# Clinical service lines with high productivity and access issues are good candidates for provider

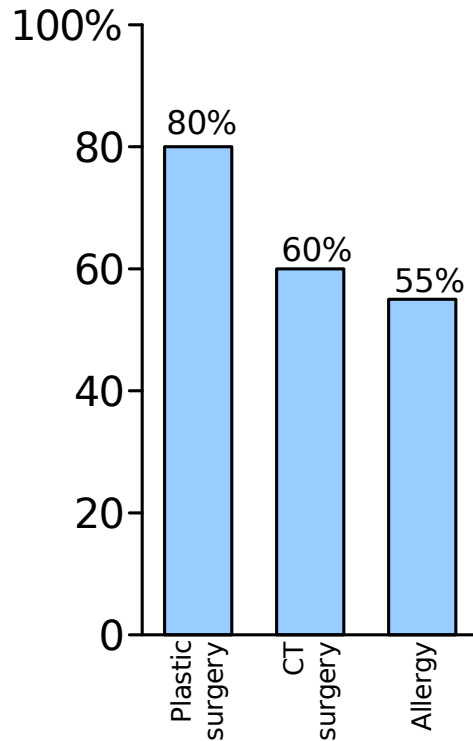
**DRAFT**



# Six service lines in the NCA have insufficient providers to support readiness needs

## Army

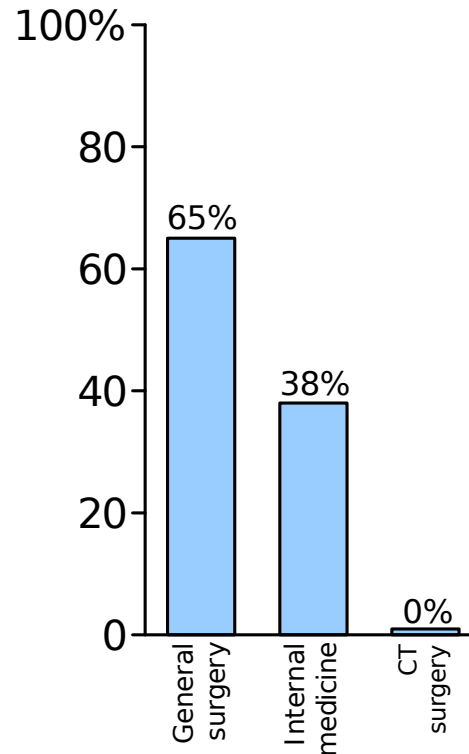
Percent of wartime requirements (2003E)



Wartime billets	5	5	11
Uniformed staff providers	4	3	6

## Navy

Percent of wartime requirements (2003E)

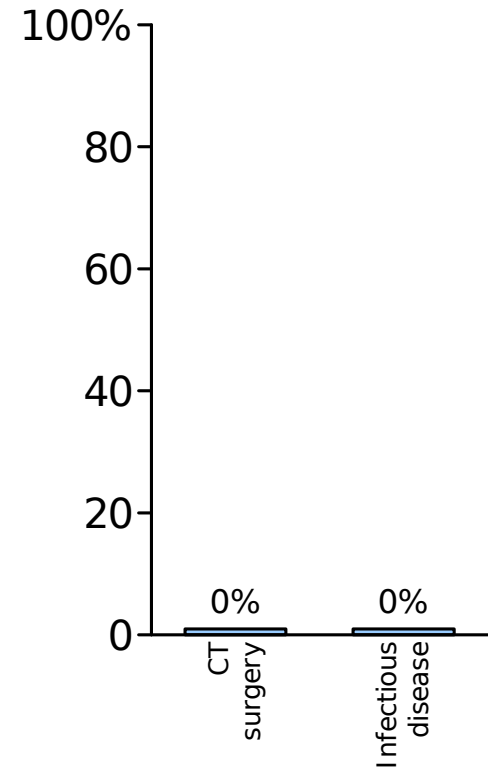


Wartime billets	17	21	1
Uniformed staff providers	11	8	0



## Air Force

Percent of wartime requirements (2003E)



Wartime billets	1	1
Uniformed staff providers	0	0

**DRAFT**

**Provider numbers should not be reduced in these lines (unless compensated for somewhere in ONCA)**

Note: Army PROFIS taskings are increased by 25% to account for non-PROFIS deployment readiness related taskings. Military staff estimated for certain MTFs using civilian+contractor to military provider ratios for known same service MTFs.

Source: Director of Clinical Business Operations -WRAMC; Medical Readiness Officer- Andrews AFB; LCDR Dan Belisle-NNMC; MTF Interviews

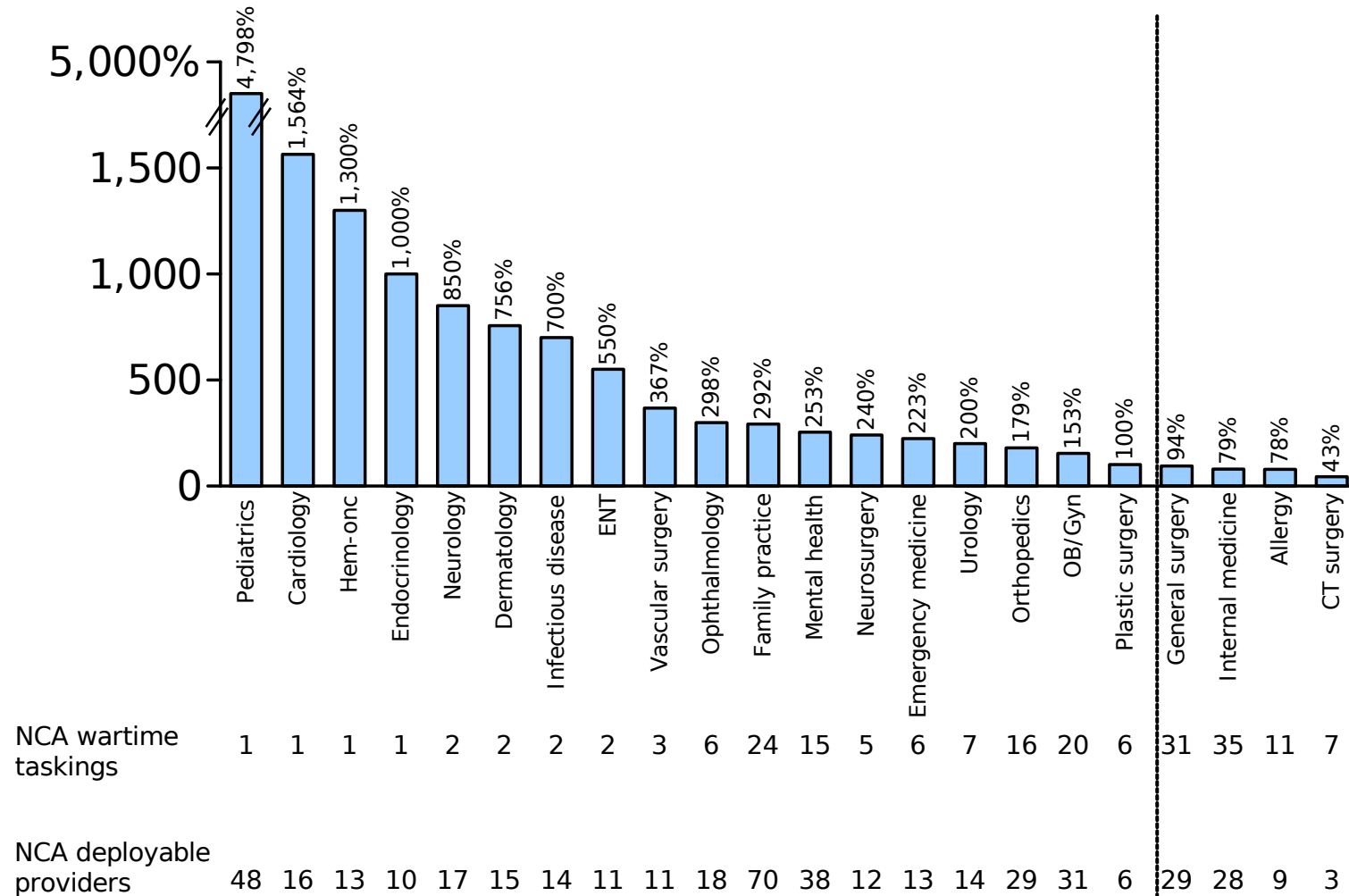
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**DOD 4**

# Almost all service lines are staffed above their aggregate NCA wartime readiness requirements

**DRAFT**  
**BACKUP**

Percent of NCA wartime requirements (2003E)



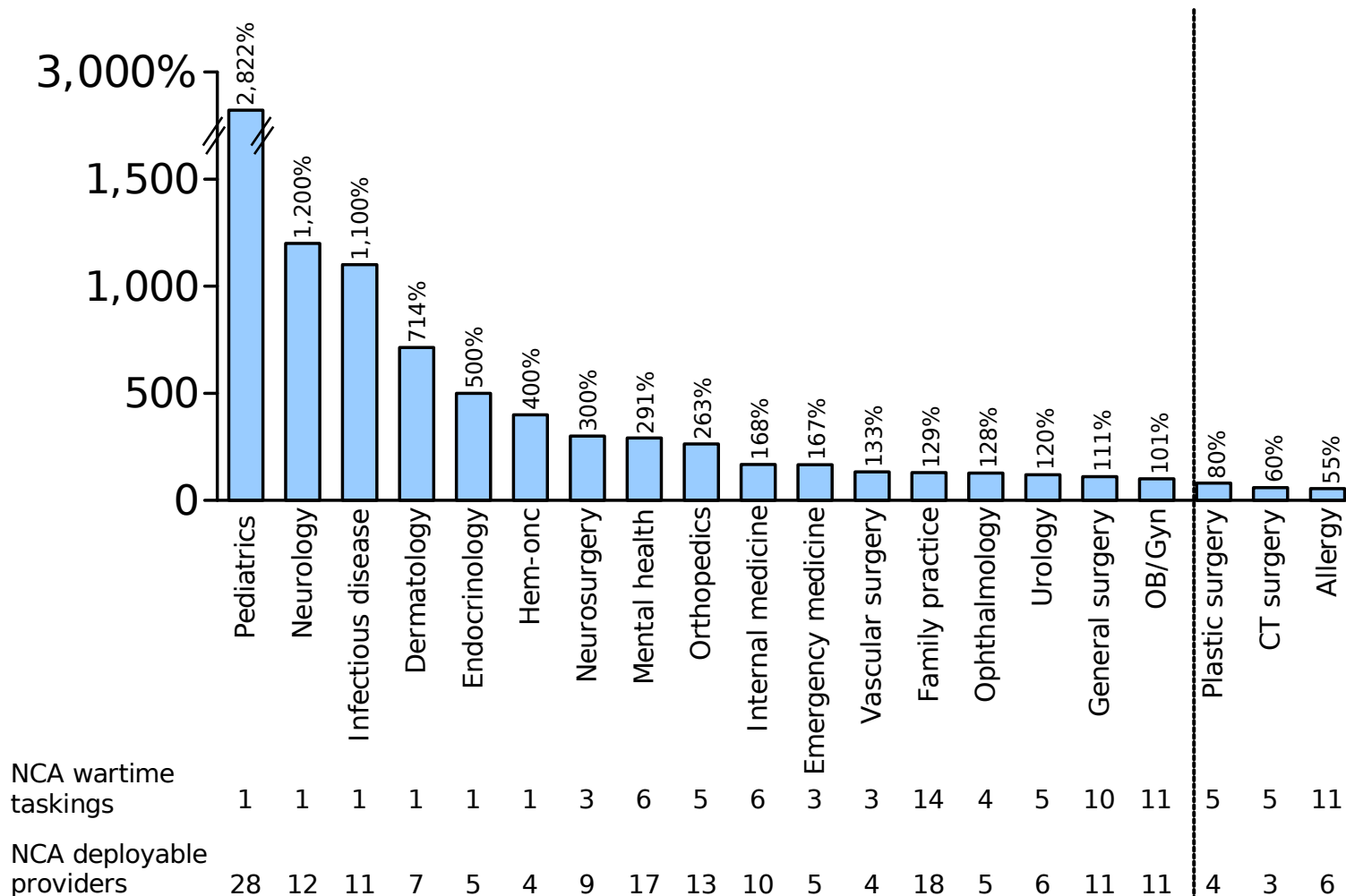
Note: Army PROFIS taskings are increased by 25% to account for non-PROFIS deployment readiness related taskings; military staff estimated using civilian+contractor to military provider ratios for known same service MTFs. Only service lines with taskings are included in chart.

Source: Director of Clinical Business Operations -WRAMC; Medical Readiness Officer- Andrews AFB; LCDR Dan Belisle-NNMC; MTF Interviews

# Almost all Army service lines are staffed above their NCA wartime readiness requirements

Percent of NCA wartime requirements (2003E)

**DRAFT**  
**BACKUP**



Note: Army PROFIS taskings are increased by 25% to account for non-PROFIS deployment readiness related taskings; military staff estimated using civilian+contractor to military provider ratios for known same service MTFs. Only service lines with taskings are included in chart.

Source: Director of Clinical Business Operations -WRAMC; MTF Interviews

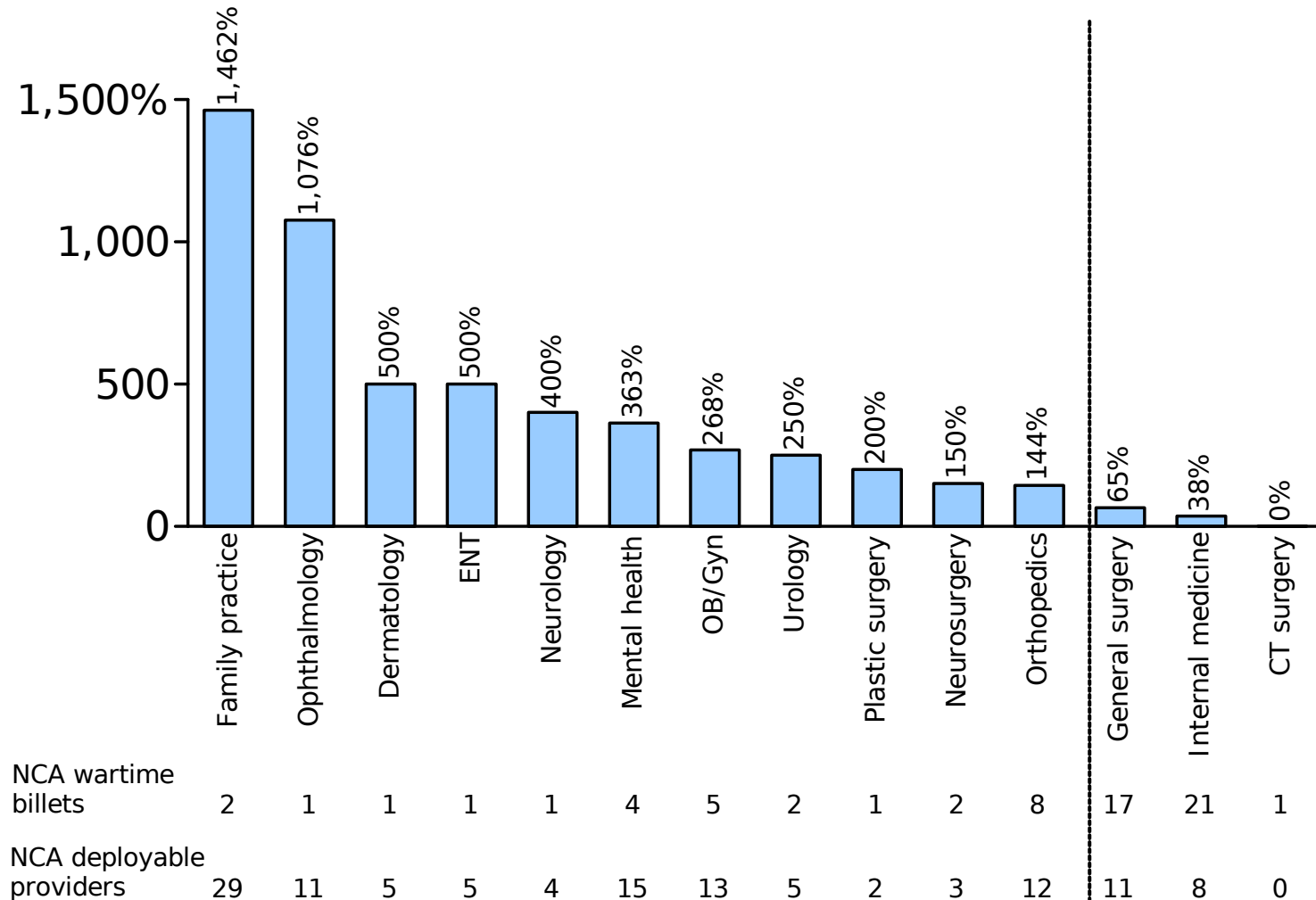
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**DOD 4**

# Almost all Navy service lines are staffed above their NCA wartime readiness requirements

**DRAFT**  
**BACKUP**

Percent of NCA wartime requirements (2003E)



Note: Military staff estimated using civilian+contractor to military provider ratios for known same service MTFs. Only service lines with taskings are included in chart.

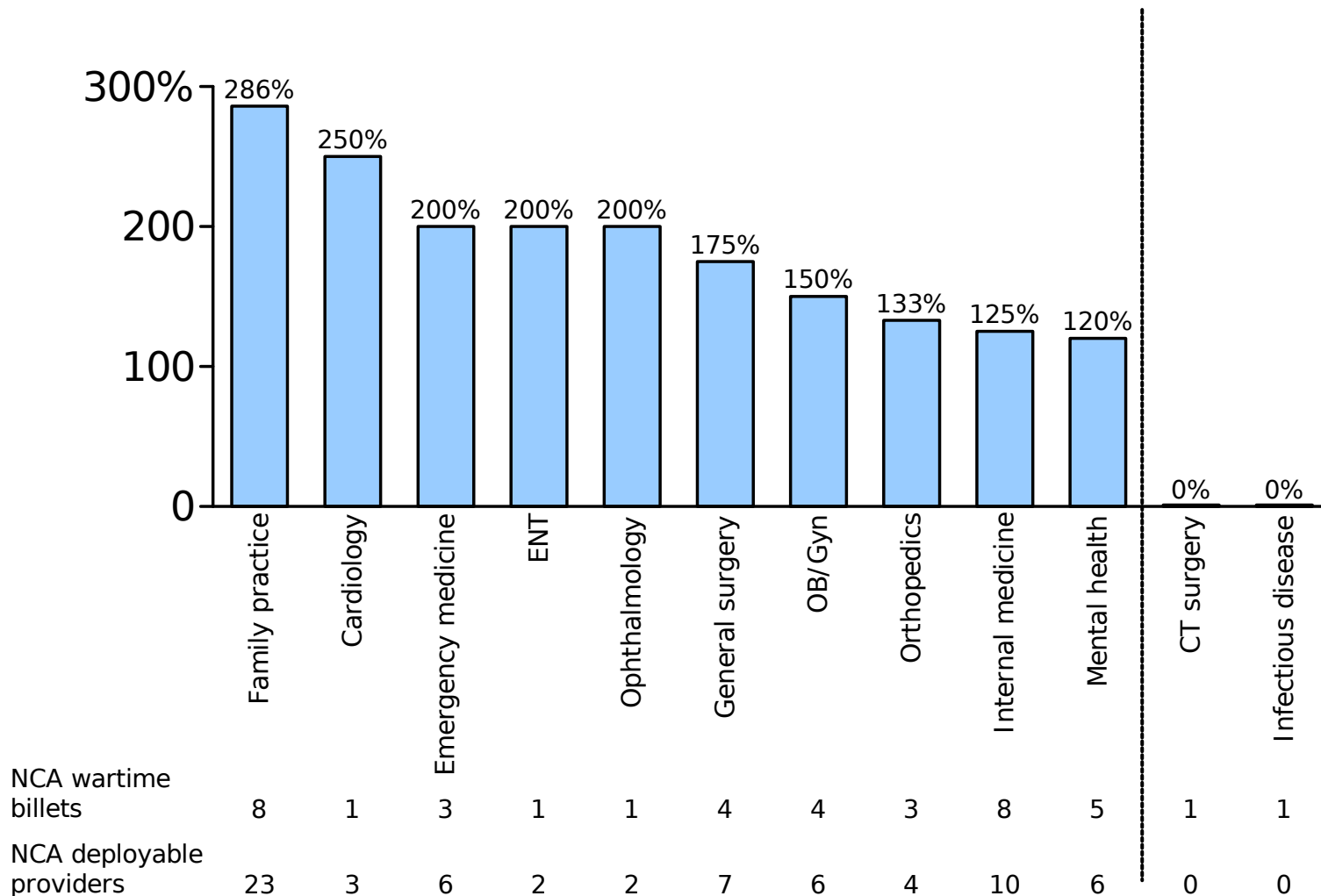
Source: LCDR Dan Belisle-NNMC; MTF Interviews

**DOD 4**

# Almost all Air Force service lines are staffed above their NCA wartime readiness requirements

Percent of NCA wartime requirements (2003E)

**DRAFT**  
**BACKUP**



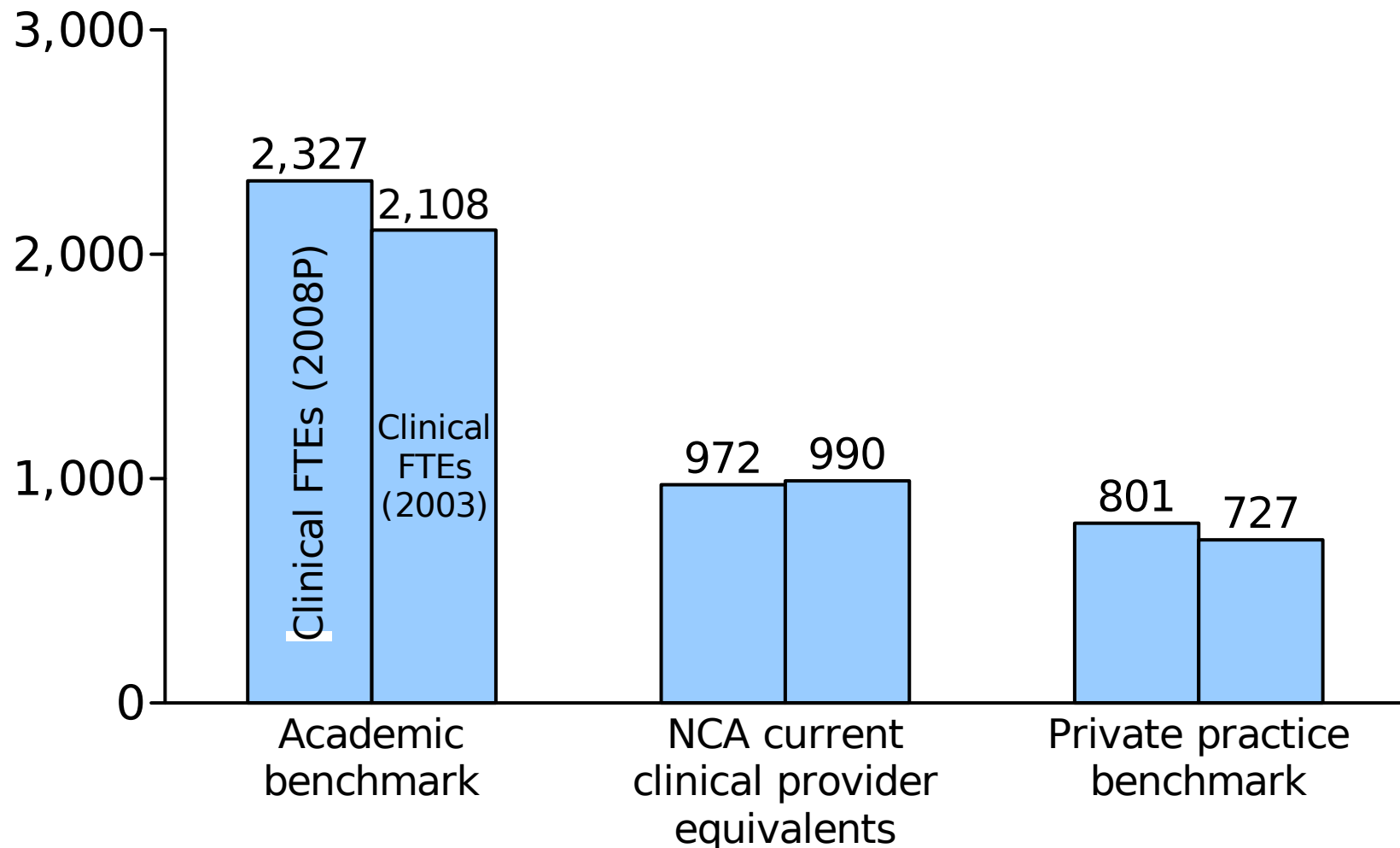
Note: Military staff estimated using civilian+contractor to military provider ratios for known same service MTFs. Only service lines with taskings are included in chart.

Source: Medical Readiness Officer- Andrews AFB; MTF Interviews

# Overall provider productivity relative to projected 2008 demand is also within the civilian benchmarks

**DRAFT**

Clinical FTE providers required to serve 2008P demand



Note: Benchmarks are higher for 2008P because demand is projected to increase. 2008 NCA provider numbers are the same as for 2003 except for decrease due to the residency weekly 80 hour workload rule.

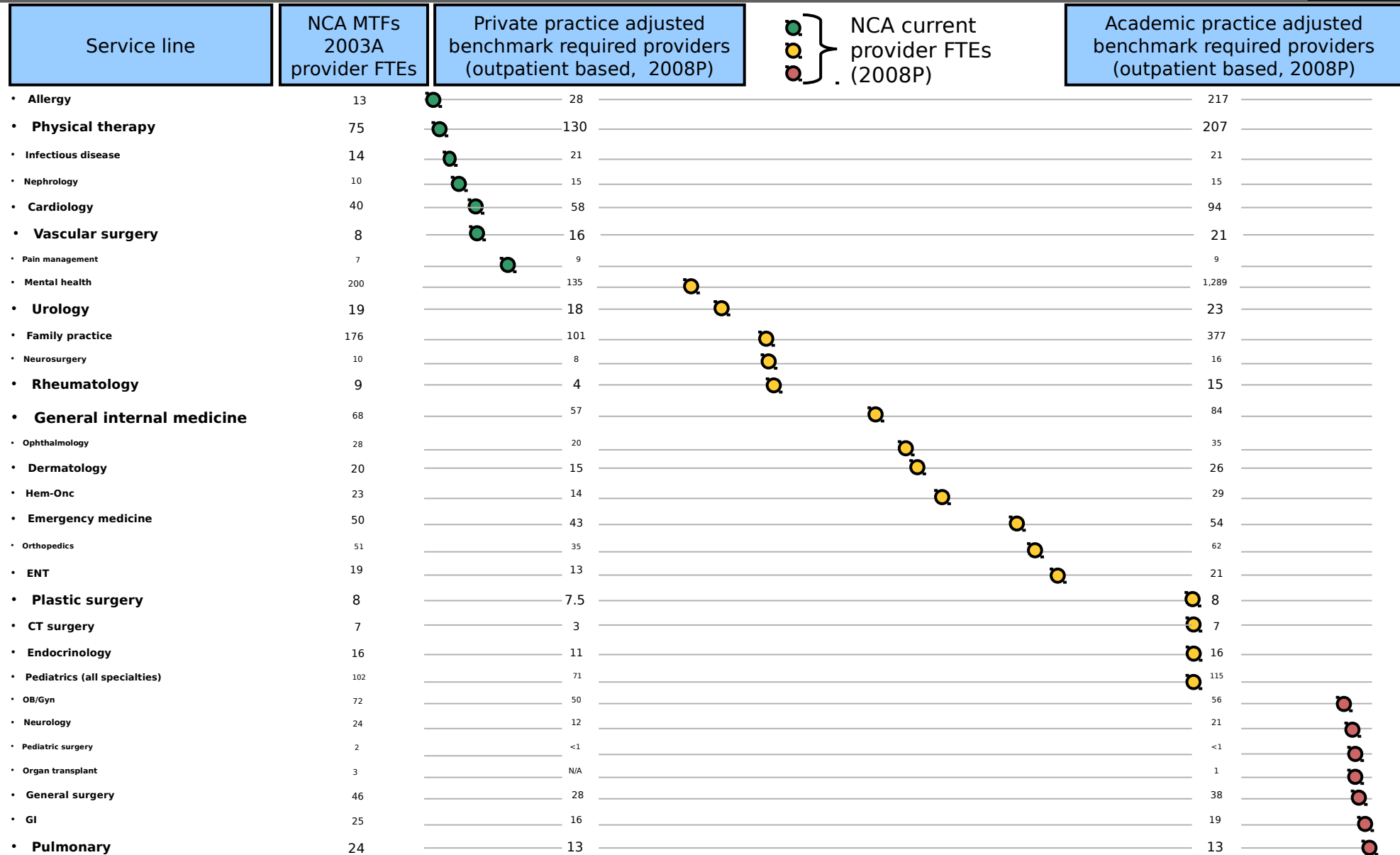
Source: MGMA; Bain Manpower Survey; NCA Working Group

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# Projected productivity levels for 2008 versus civilian benchmarks appear very similar to current 2003 estimates

**DRAFT**



Note: 2003A provider FTEs is the same number as for 2003E, except resident to staff conversion rates were lowered by 10% for the 80 hour work week rule. Provider productivity based on outpatient visit benchmarks. Where private practice productivity was lower than academic, private practice was set equal to the academic benchmark. Where benchmarks differed from actual by <1 provider, the line was classified in the more productive category.

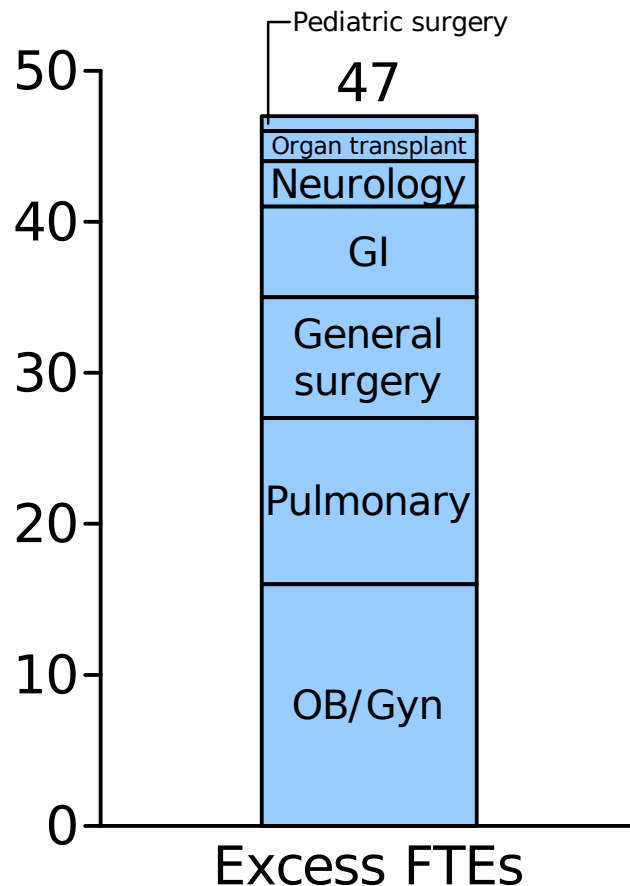
Source: Bristol Group; MGMA; Bain Manpower Survey

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**DOD 4**

Assuming the current number of provider FTEs does not change, there will be an excess of 47 FTE providers relative

**DRAFT**



Lines more productive than academic benchmarks that you may want to run closer to private practice productivity benchmarks

- Dermatology (5)
- Emergency medicine (7)
- Family practice (75)
- General pediatrics (35)
- Mental health (65)
- Ophthalmology (8)

+

( ) represents surplus 2003A\*\*\* provider FTEs in excess of 2008P private practice benchmarks

Note: \*General surgery provider numbers may not be reducible due to readiness needs. \*\*Analysis for pediatric sub-specialties comes from business planning section (Recommendation 3). \*\*\*2003A provider FTEs is the same number as for 2003E, except resident to staff conversion rates were lowered by 10% for the 80 hour work week rule.

Source: Bristol Group; MGMA; Bain Manpower Survey

**DOD 5**

# Recommendation 2: Move primary and specialty care providers to the south and add facility capacity

**DRAFT**

- 95% of direct healthcare in the NCA is provided within distance access standards
  - Approximately 70% of outside of standard visits are for Prime patients
  - For both primary and specialty care, the two regions most affected by “outside access standards” are Fredericksburg and I-95
- To serve Fredericksburg primary care “outside access standard” demand, a new facility will be required with 8-16\* primary care providers
- To serve I-95 South primary care “outside access standard” demand, at least two options exist:
  - Use capacity which will open up at Quantico once the Fredericksburg clinic is up and running
  - Add a new facility in I-95 South to serve both primary and specialty care (see next bullet point)
- To serve both Fredericksburg and I-95 South specialty care “outside access standard” demand, at least three options exist:
  - Add capacity to DeWitt to be able to add an additional 41-56\* specialty care providers
  - Add capacity to Quantico to be able to add an additional 41-56\* specialty providers
  - Add a new facility in I-95 South to serve both primary and specialty care

Note: \*Range depends on recapture and provider productivity.

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# Recommendation 2a: Consider opening a new facility in the south to better serve I-95 South and Fredericksburg primary

**DRAFT**

- The bulk of primary care provided in the NCA today is provided within access standards
  - 92% of primary care visits are within access standards
  - Over 70% of outside of standards primary visits are for Prime patients
  - Southern regions (I-95 South, Fredericksburg and Pax River) account for over 45% of “outside access standard” primary care visits
- Solving I-95 South and Fredericksburg primary care access issues will require a dual approach
  - A new clinic facility in Fredericksburg would meet 90% of “outside of standards” primary care demand
    - Providing primary care through a new facility in Fredericksburg could increase direct primary visits from 13K to ~30K, thus exceeding the minimum critical scale requirement of ~24K primary visits
    - This facility would require between 8 and 16 primary care providers, and would likely best be implemented through a civilian contract model
  - Redirecting I-95 South’s “outside of standards” primary care demand to Quantico would address nearly 100% of the region’s primary care access problem
    - Quantico’s workload would not be impacted if Fredericksburg primary care went to the new facility and was replaced by I-95 South demand

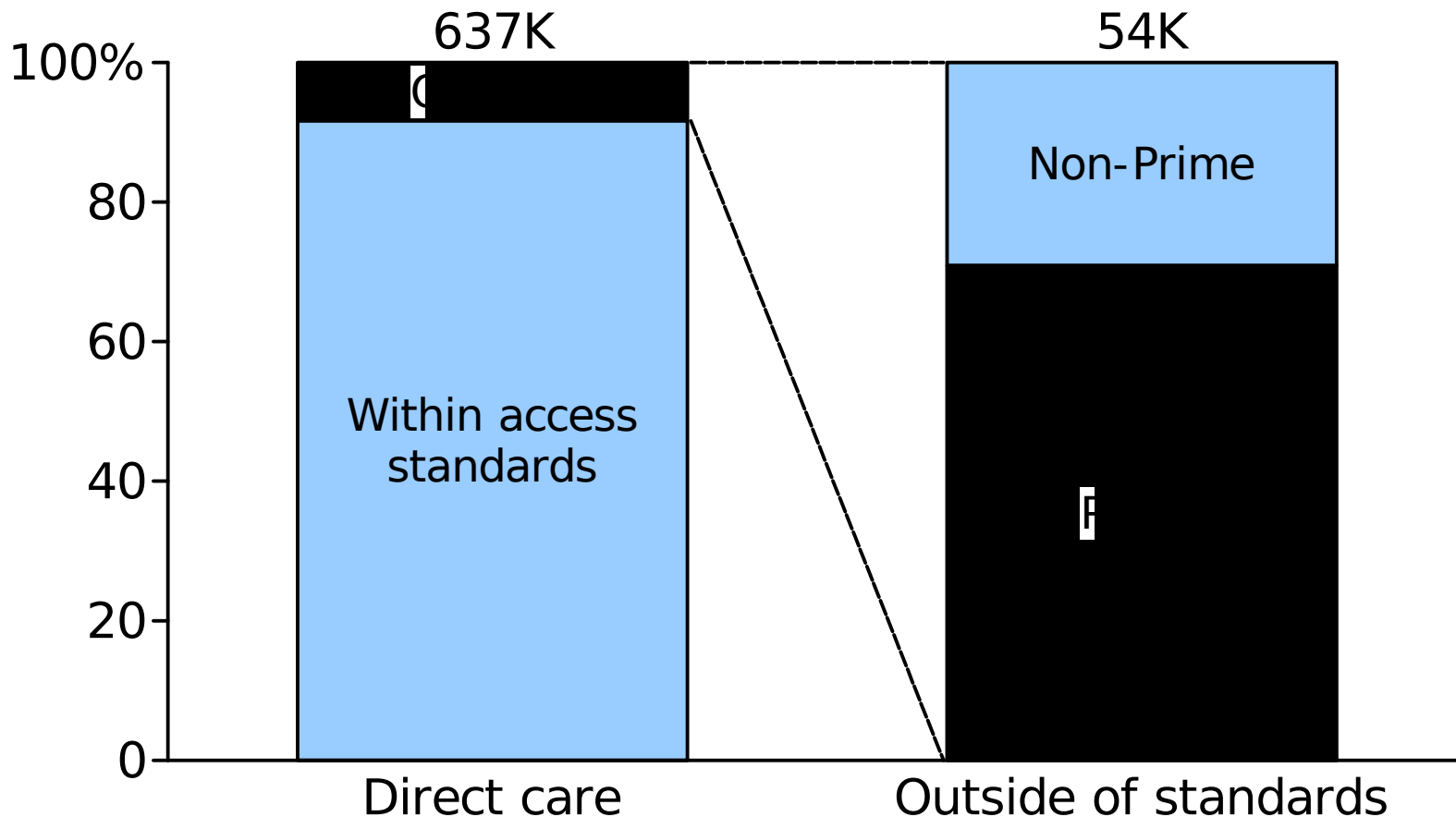
- Another option is to open up a second facility in I-95 South to serve both primary and specialty care needs (see Recommendation 2b)

**DOD 5**

Overall, primary direct care in the NCA appears to be delivered within access standards, though ~71% of “outside

**DRAFT**

Percent of primary care visits (2002)



Note: Primary care access standards are 20 miles and include family practice, internal medicine and pediatrics. Outside of standards Prime vs. Non-Prime breakout does not include about 1% of visits due to data classification issues – percent breakout is assumed applicable to total outside of standards care.

Source: SADR 2002; MapInfo

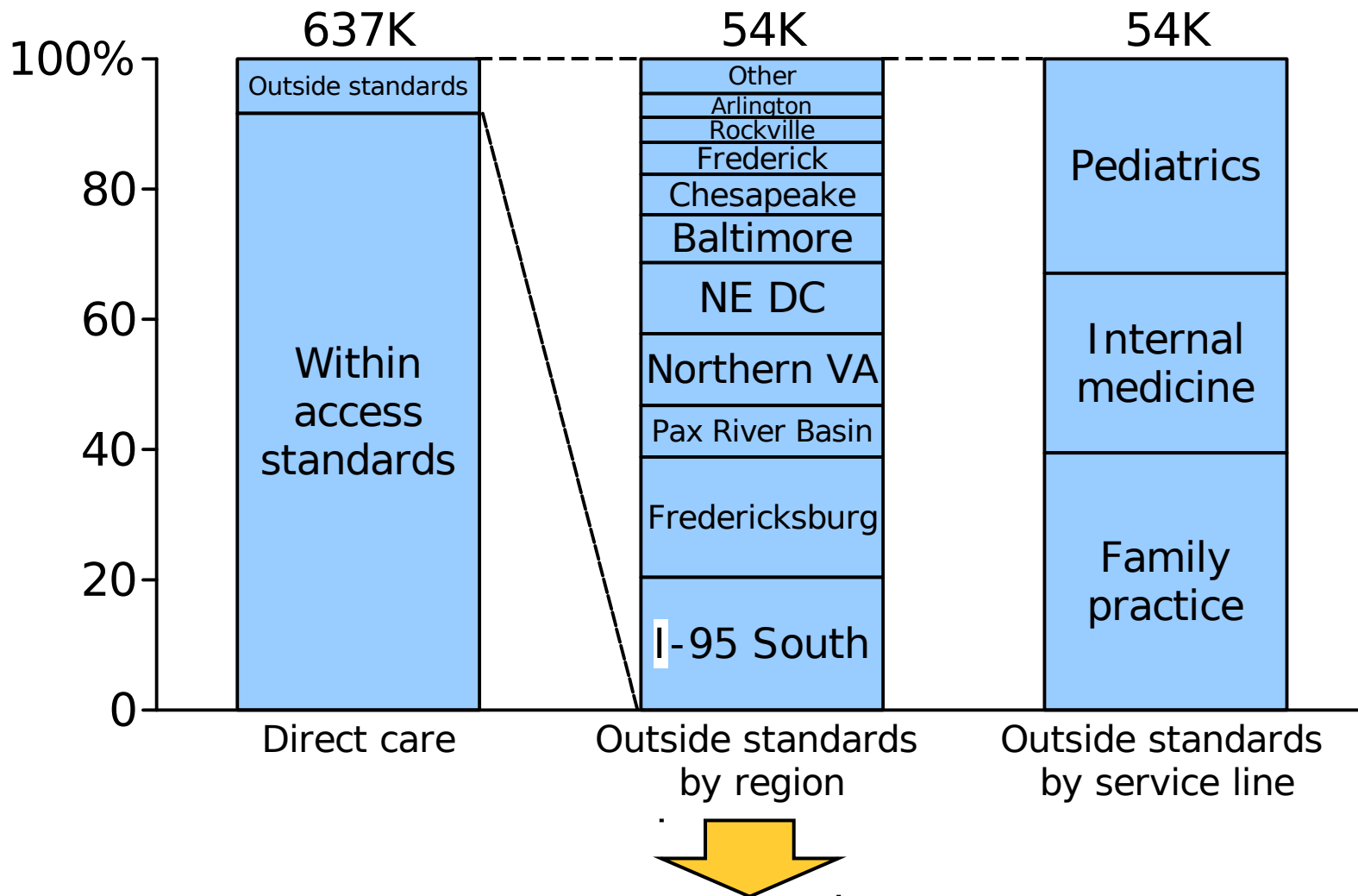
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**DOD 5**

# Over 40% of primary care access issues derive from residents in the south

Percent of primary care visits (2002)

**DRAFT**



**Southern regions account for the bulk of access issues**

Note: Primary care access standards are 20 miles and include family practice, internal medicine and pediatrics. Specialty care includes all other 27 in-scope service lines and access standards are defined as being within 40 miles of the patient.

Source: SADR 2002; MapInfo

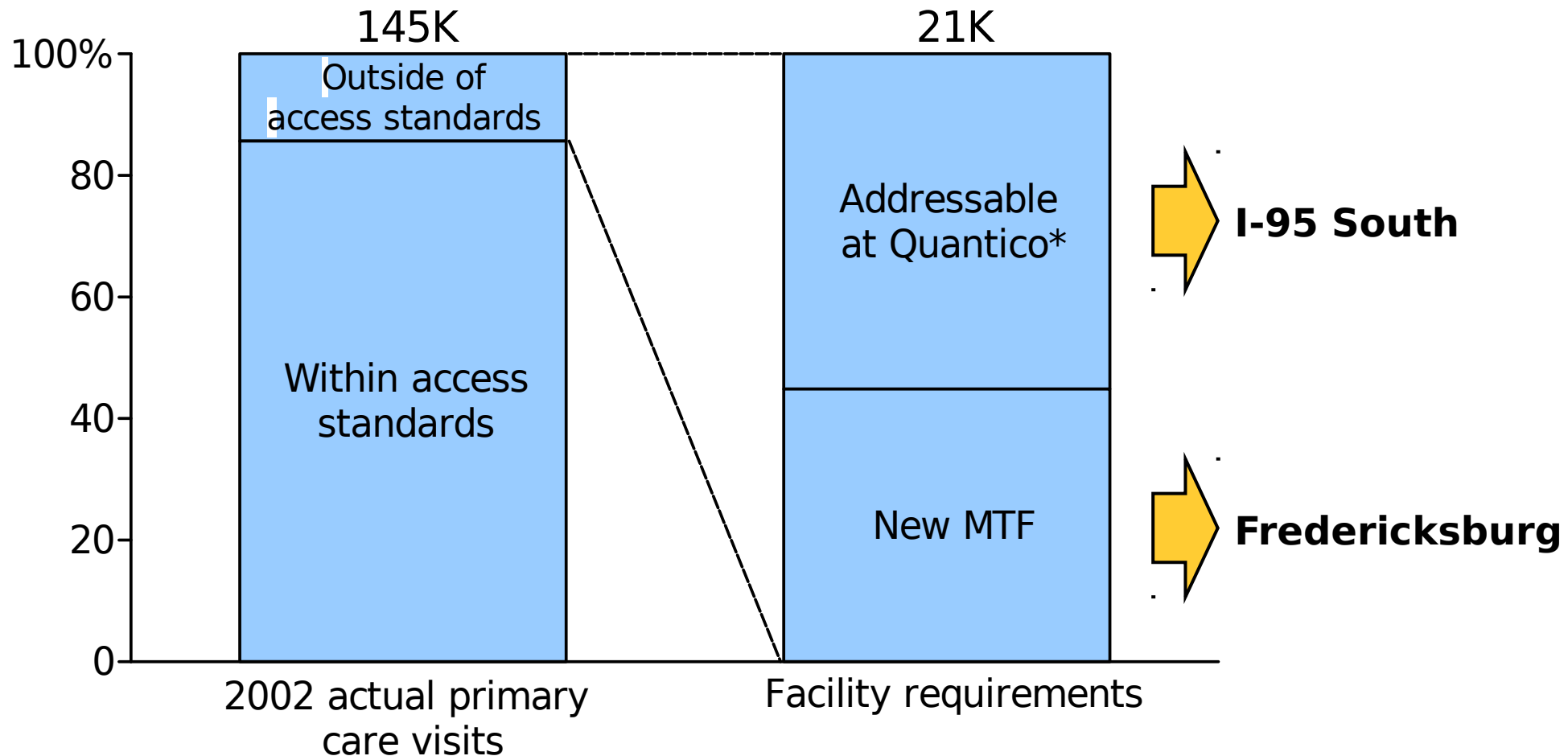
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**DOD 5**

# Primary care access issues in I-95 South and Fredericksburg must be addressed in two ways

**DRAFT**

Percent of total primary care visits (2002)



Note: \*Subject to provider availability/facility capacity. Primary care access standards are 20 miles and include family practice, internal medicine and pediatrics.

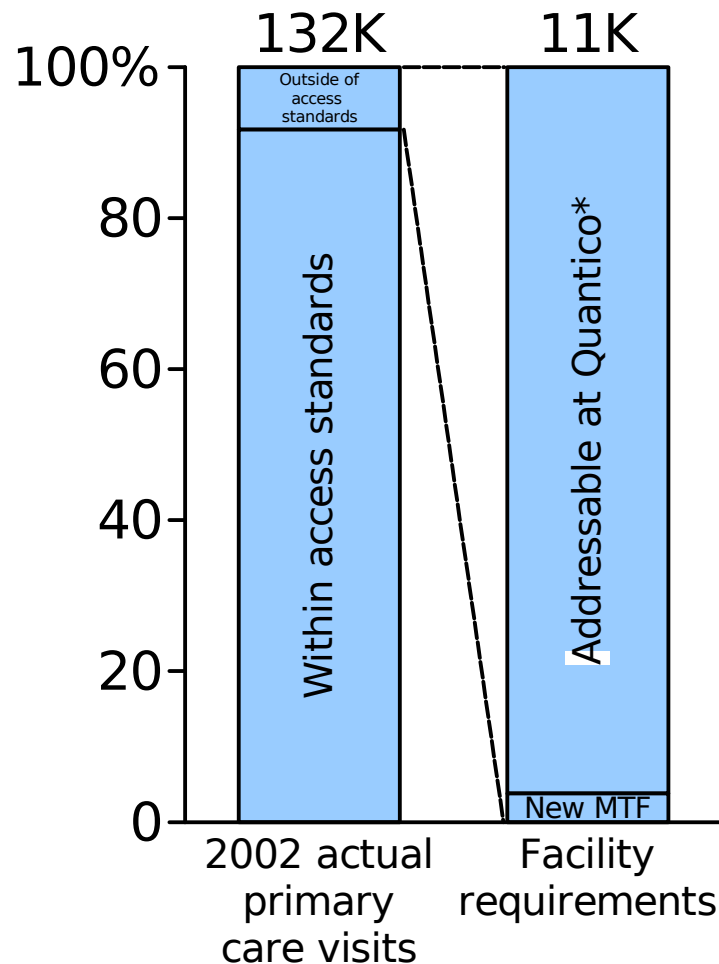
Source: SADR 2002; MapInfo

**DOD 5**

# Redirecting I-95 South demand to Quantico and adding a new primary care clinic in Fredericksburg

## I-95 South

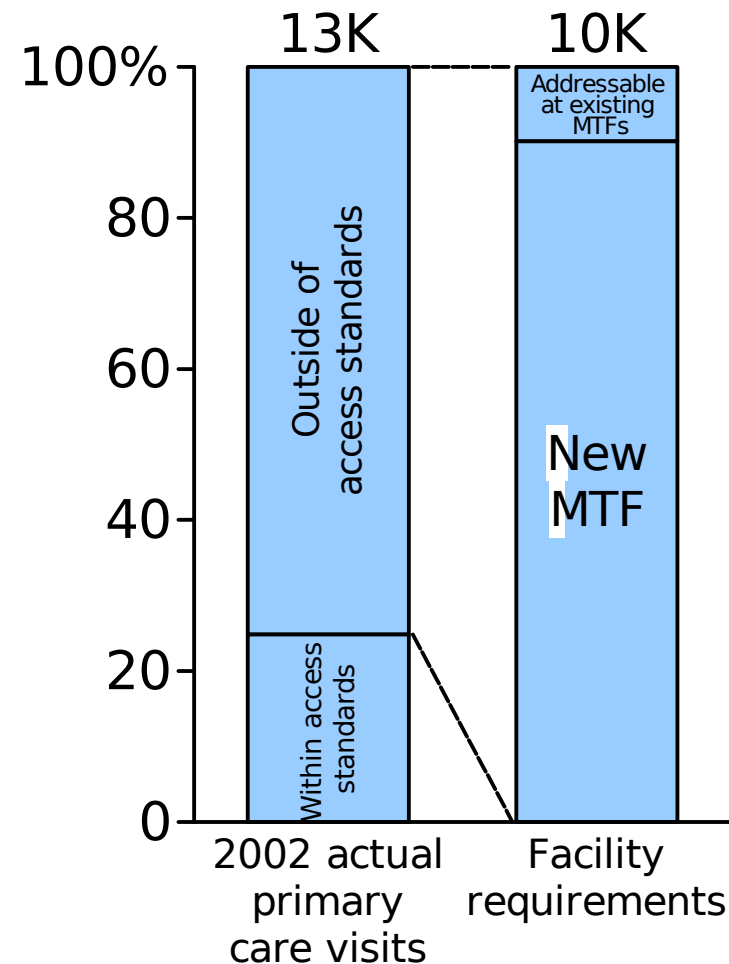
Percent of I-95 South primary care visits



## Fredericksburg

**DRAFT**

Percent of Fredericksburg primary care visits



Note: \*Subject to provider availability/facility capacity. Primary care access standards are 20 miles and include family practice, internal medicine and pediatrics.

Source: SADR 2002; MapInfo

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# I-95 South and Fredericksburg demand

**BACKUP**

**DRAFT**

## Outpatient visits (K)

**Fredericksburg**

**I-95 South**

**Total**

### Specialty care

Within standards	6.07	42%	120.77	92%	126.84	87%
<u>Outside standards</u>	<u>8.28</u>	58%	<u>10.91</u>	8%	<u>19.18</u>	13%
Sub-total	14.35		131.68		146.03	
	10%		90%			

### Primary care

Within standards	3.26	25%	117.21	90%	120.48	84%
<u>Outside standards</u>	<u>9.88</u>	75%	<u>13.66</u>	10%	<u>23.54</u>	16%
Sub-total	13.14		130.87		144.01	
	9%		91%			

### Total

Within standards	9.33	34%	237.99	91%	247.32	85%
<u>Outside standards</u>	<u>18.16</u>	66%	<u>24.57</u>	9%	<u>42.72</u>	15%
Total	27.49		262.55		290.04	
	9%		91%			

Source: SADR 2002; MapInfo

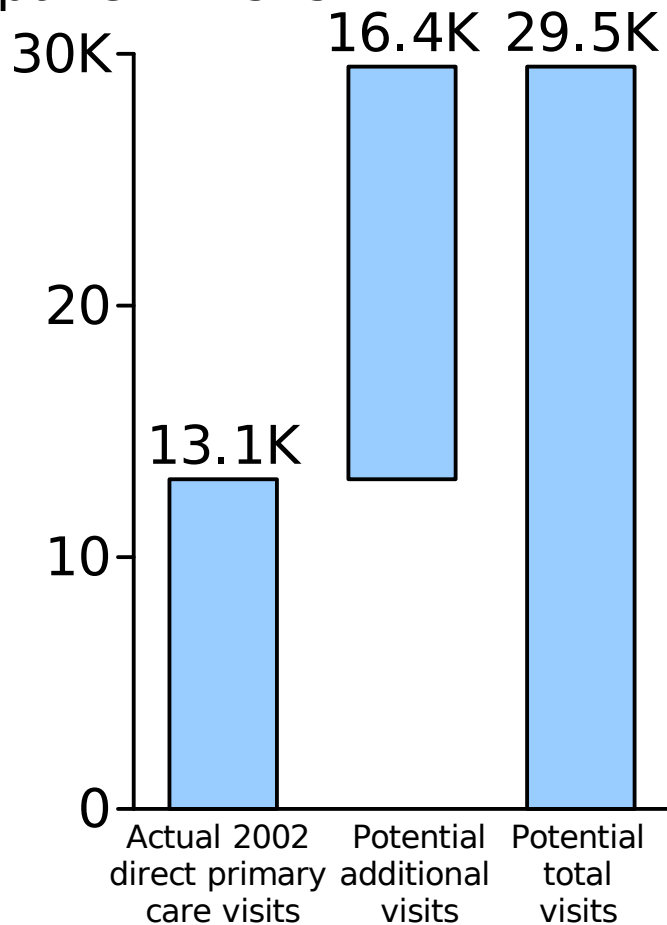
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**DOD 5**

# If care were provided directly in Fredericksburg, total direct care visits could potentially more than double

**DRAFT**

## Primary care outpatient visits



### Key assumptions

- Total NCA direct care + purchased care visits 2.4M
- Fredericksburg population as % of NCA 3.1%
- Potential demand in Fredericksburg defined as total NCA visits multiplied by % of NCA population living in Fredericksburg 74.4K
- Primary care share of direct care based on current Fredericksburg 48%/52% primary/specialty care split 35.7K
- Direct care market share based on NCA primary care average of 83% 29.5K



The 29.5K visits would likely meet critical scale requirements for a small primary care facility

Note: DACH experience indicates that minimum scale required to support a primary care MTF is ~12K enrollees, which corresponds to ~24K primary care visits, based on Bain utilization analysis.

Source: SADR 2002; MapInfo; Bain Manpower Survey; COL Sutton

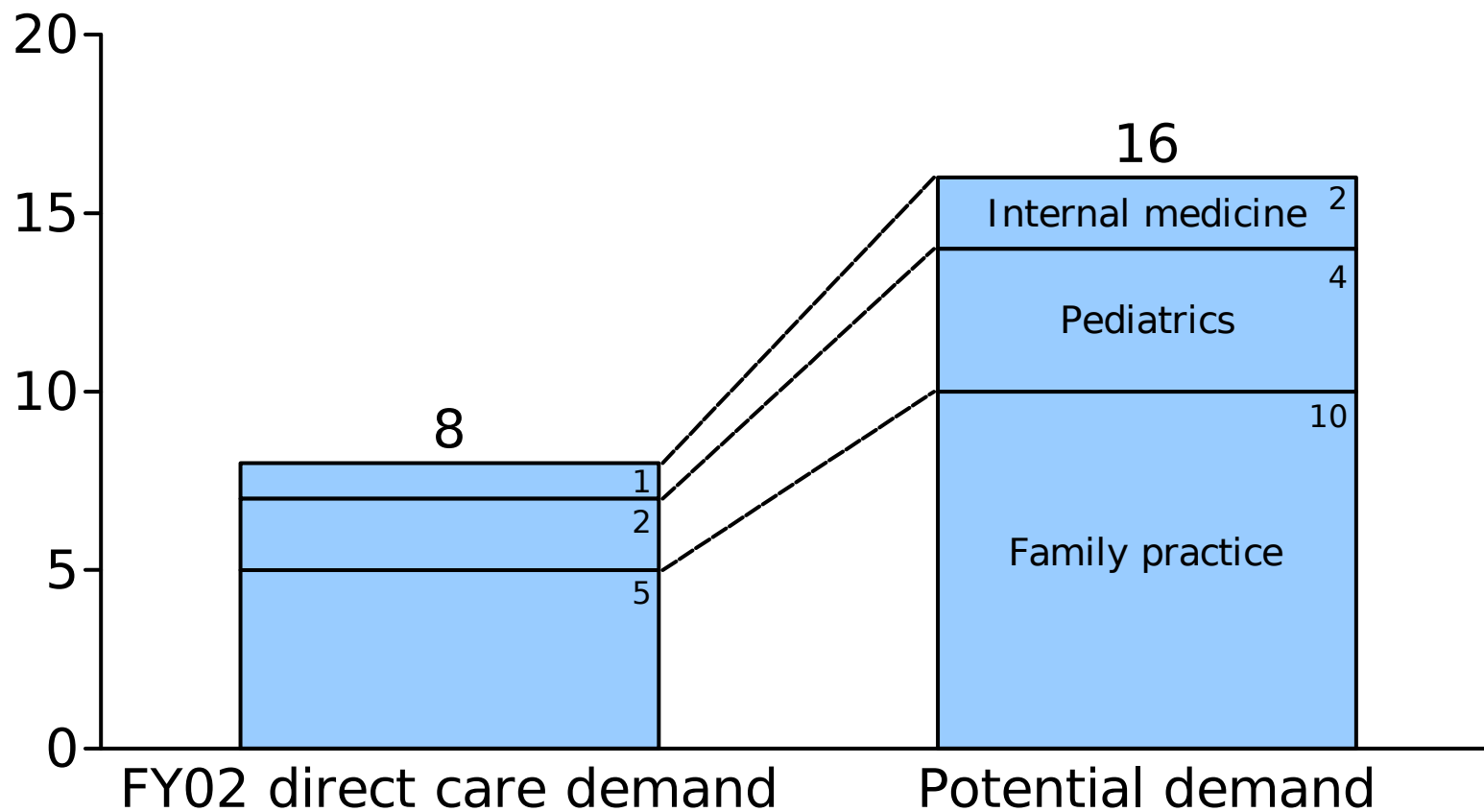
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**DOD 5**

# Meeting Fredericksburg primary care demand would likely require between 8 and 16 providers\*

Total providers

**DRAFT**



Visits:

13.1K

29.5K

Note: \*Assuming average NCA productivity levels by service line. Primary care access standards are 20 miles and include family practice, internal medicine and pediatrics.

Source: SADR 2002; MapInfo

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**DOD 5**

# On balance, the civilian contract facility model appears to be the better choice, under the right

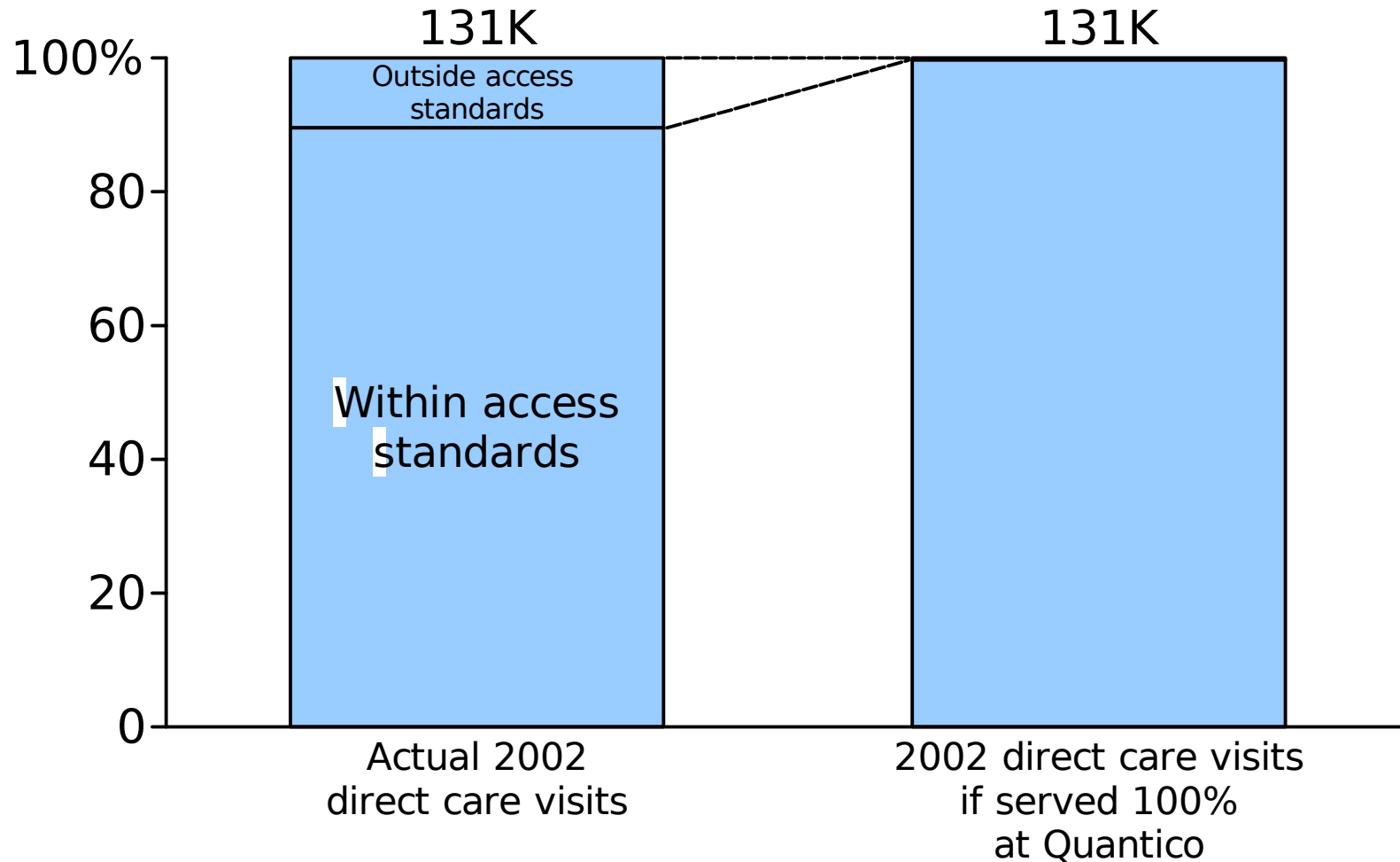
**DRAFT**

	Civilian contract operated	MHS operated
Pros	<ul style="list-style-type: none"><li>• Economically likely more advantageous</li><li>• Superior managerial flexibility, particularly on labor and regulatory issues</li><li>• Civilian personnel provide institutional memory, experiential learning</li><li>• Civilian colleague relationships enriching for military providers</li></ul>	<ul style="list-style-type: none"><li>• Retention of full control of resources</li><li>• Better integration with MHS network</li><li>• Better indoctrination into military culture</li></ul>
Cons	<ul style="list-style-type: none"><li>• Performance-based contracts more resource intensive to oversee</li><li>• Management of deployments may get more complex</li></ul>	<ul style="list-style-type: none"><li>• Budgeting and resourcing process lengthy and burdensome</li><li>• Less adaptable to market changes</li><li>• Significant capital investment required</li></ul>

# Quantico appears well suited to deal with the I-95 primary care access issues

**DRAFT**

Percent of direct primary care visits for I-95 South patients

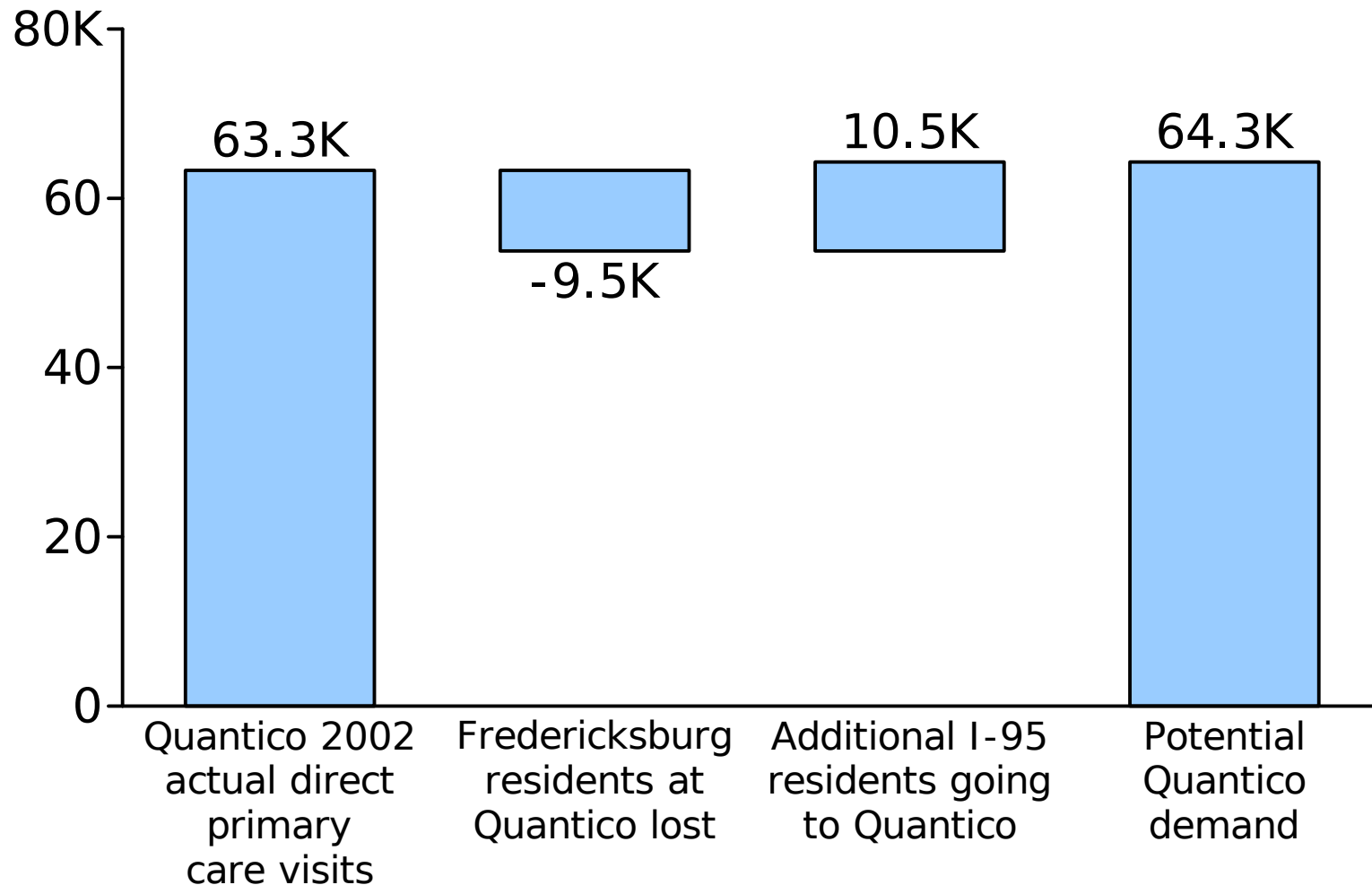


Source: SADR 2002; MapInfo

# Assuming Quantico lost Fredericksburg patients but gained I-95 South patients, the net impact on primary

**DRAFT**

Quantico direct primary care visits

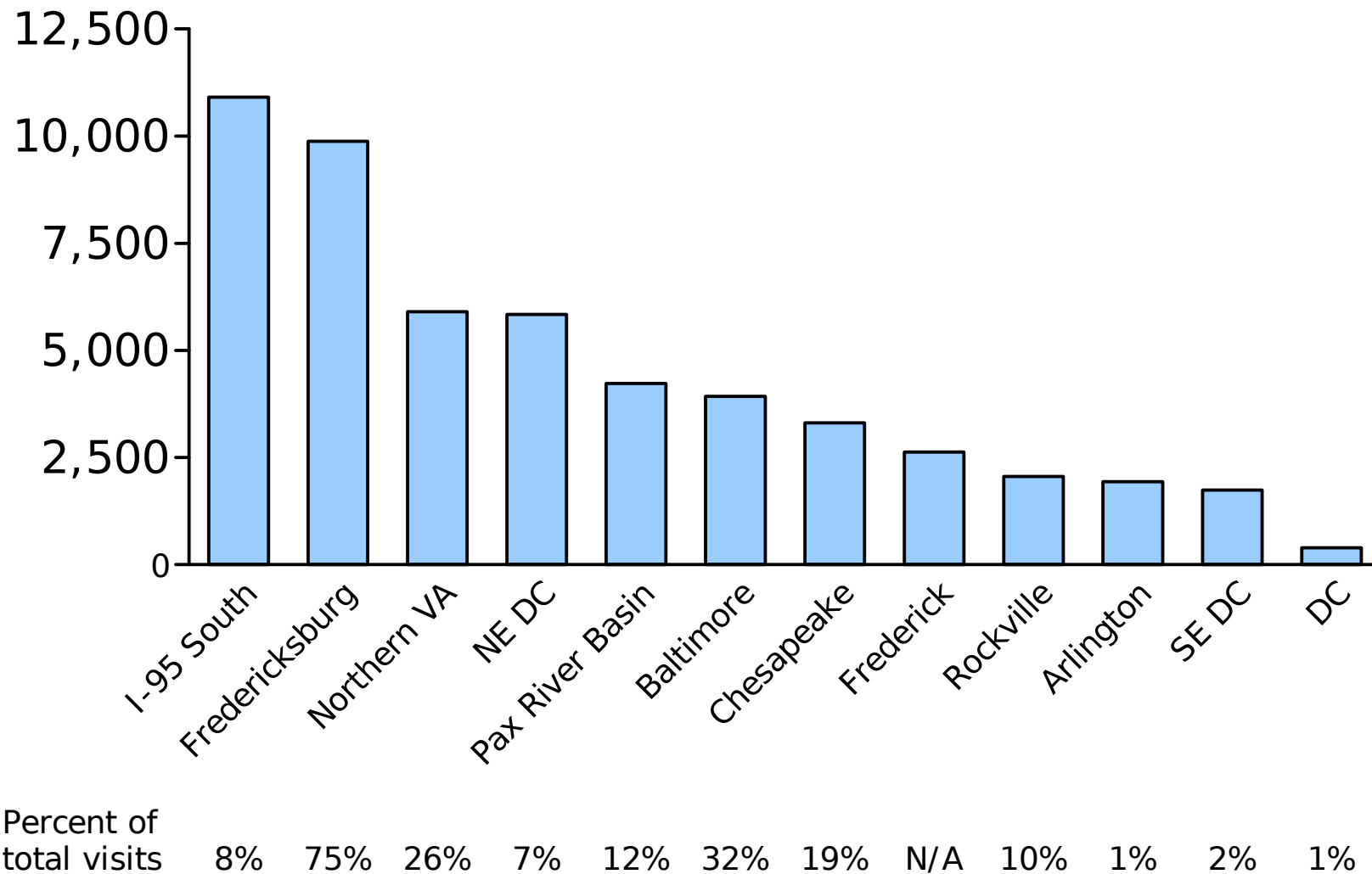


Source: SADR 2002; MapInfo

# Several other regions can be analyzed for opportunities to improve driving access standards

**DRAFT**

## Out-of-standard outpatient primary care visits (2002)



Source: SADR 2002; MapInfo

**DOD 6**

# Recommendation 2b: Move ~40-60 specialty care providers to the south and add facility capacity to support these providers

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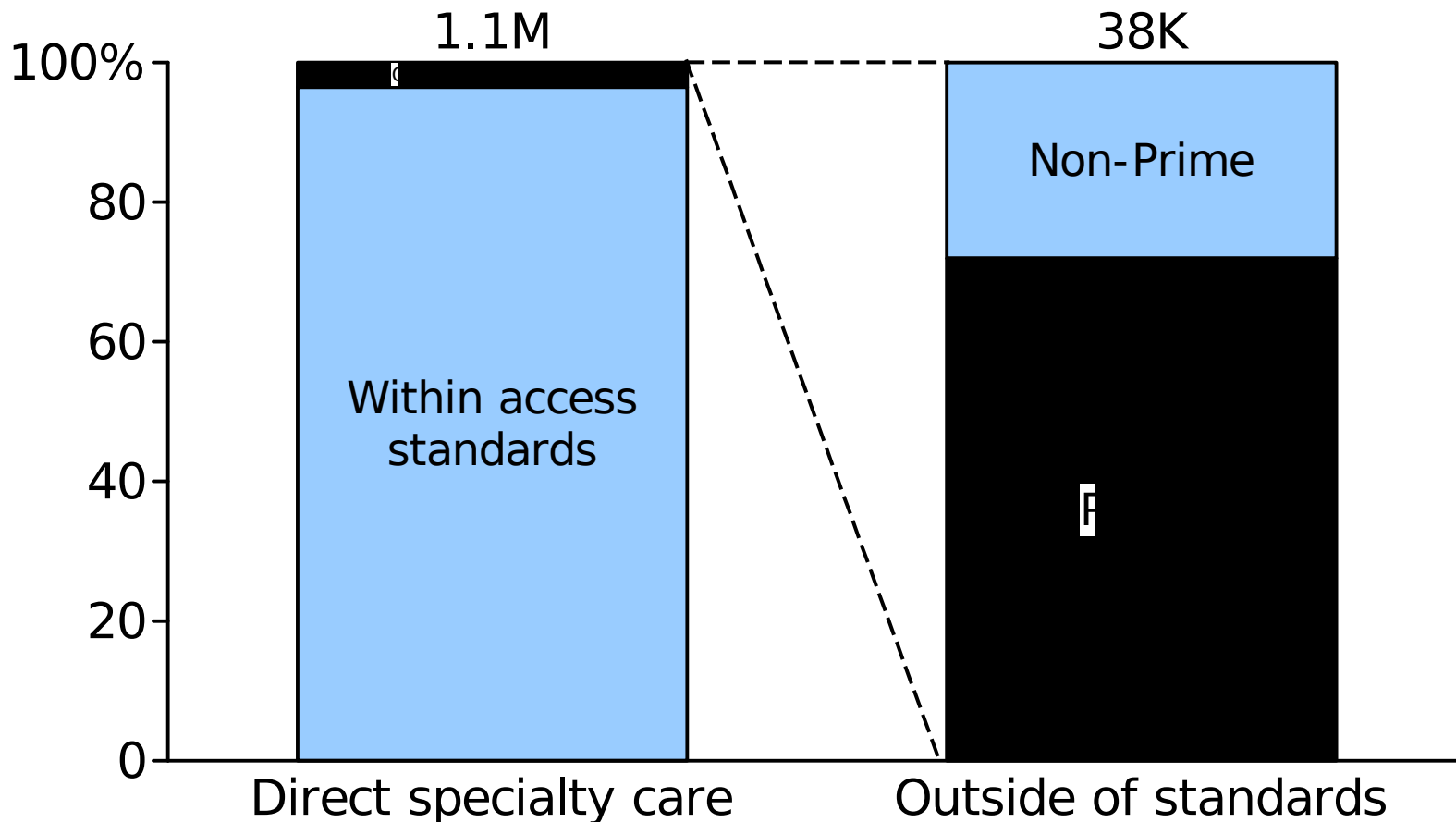
- The bulk of specialty care provided in the NCA today is within access standards
  - 96% of specialty visits are within access standards
  - Over 70% of outside of standards specialty visits are for Prime patients
  - Southern regions (I-95 South, Fredericksburg and Pax River) account for over 80% of “outside access standard” specialty visits
    - These regions will continue to be essentially the same proportion of total NCA demand in 2008
- Focusing on access issues in the I-95 South and Fredericksburg regions, all of “outside access standard” care could be solved by relocating specialty providers to DeWitt (or Quantico)
  - This would likely involve relocating providers from Walter Reed and Bethesda
  - At current productivity levels, approximately 56 specialty providers would need to be moved; this number could be reduced to approximately 41 if DeWitt provider productivity levels for certain service lines rose to the NCA average
  - It would be necessary to expand DeWitt’s capacity by ~35% to accommodate these providers
  - Quantico could be another good candidate to serve this demand
- Another option to serve this specialty demand would be to open a new facility in I-95 South, which could provide both primary and specialty care services
  - 8-16 primary care providers, depending on demand recapture and productivity
  - 41-56 specialty providers, depending on demand recapture and productivity



# Overall, specialty direct care in the NCA appears to be delivered within access standards, though ~72% of “outside

**DRAFT**

Percent of specialty care visits (2002)



Note: Specialty care includes all other 27 in-scope service lines and access standards are defined as being within 40 miles of the patient. Outside of standards Prime vs. Non-Prime breakout does not include about 1% of visits due to data classification issues - percent breakout is assumed applicable to total outside of standards care.

Source: SADR 2002; MapInfo

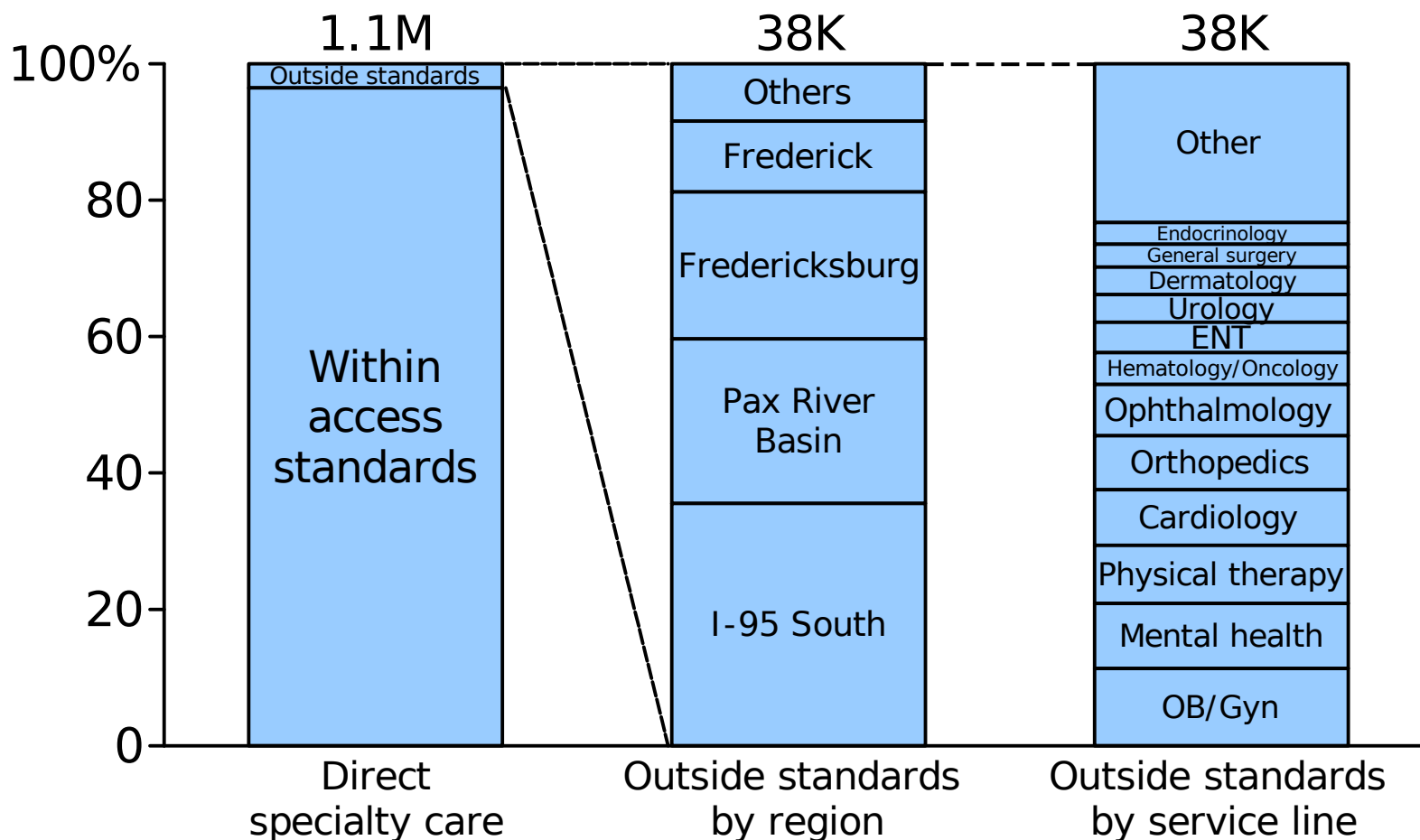
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**DOD 6**

# Southern regions account for the bulk of access issues in specialty care

**DRAFT**

Percent of specialty care visits (2002)



Note: Specialty care includes all other 27 in-scope service lines and access standards are defined as being within 40 miles of the patient.

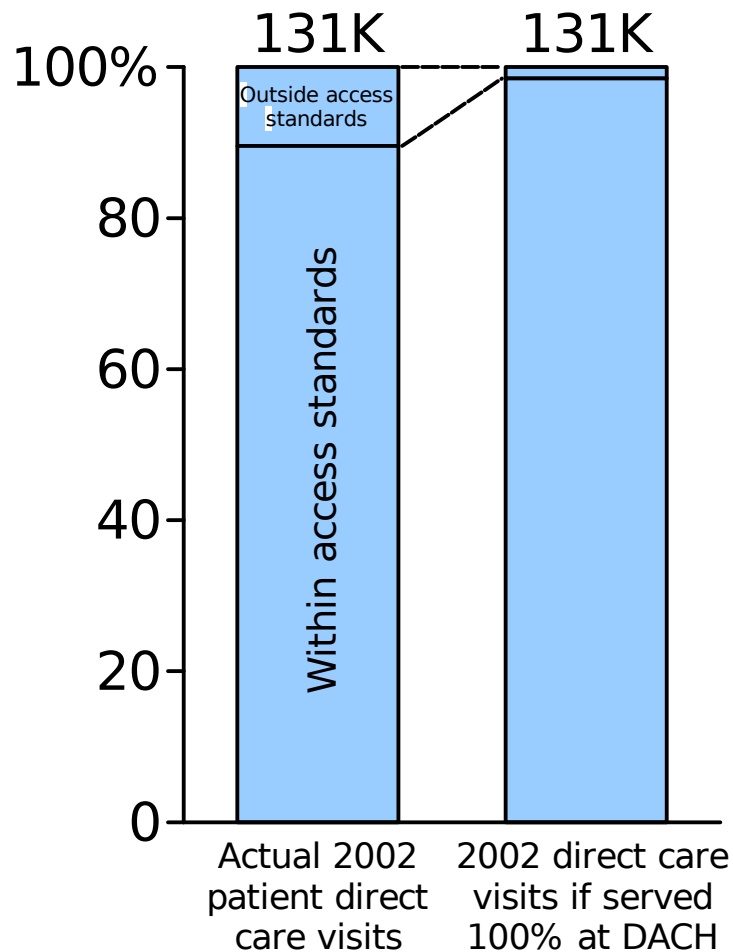
Source: SADR 2002; MapInfo

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# Specialty care demand access from the I-95 South and Fredericksburg regions could be greatly improved if

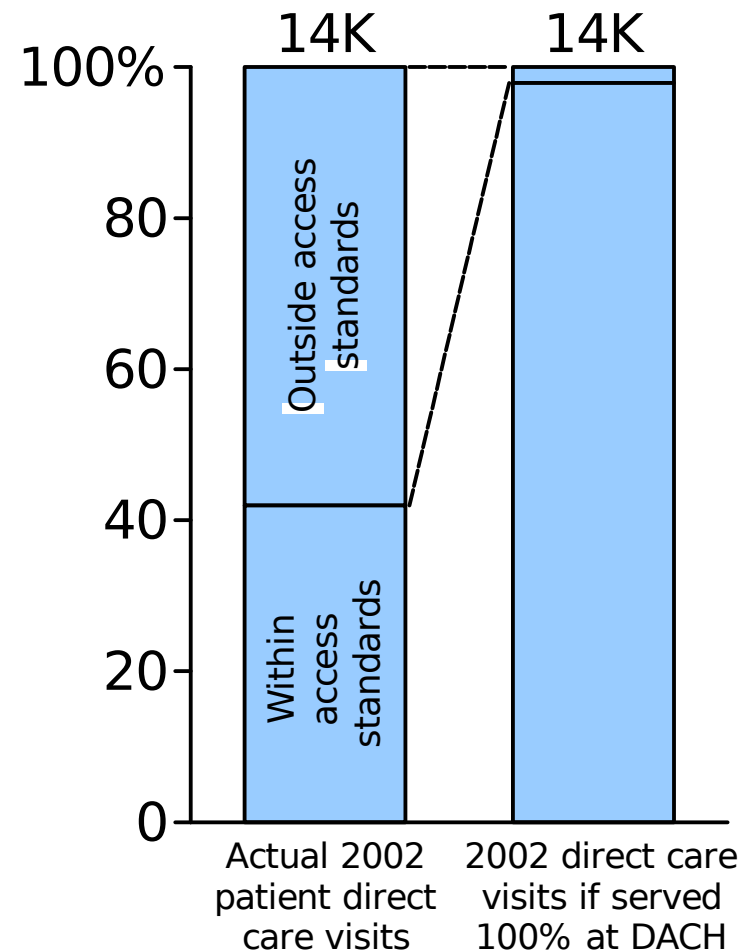
## I-95 South

Percent of I-95 South  
specialty care  
outpatient visits (2002)



## Fredericksburg

Percent of Fredericksburg  
specialty care  
outpatient visits (2002)



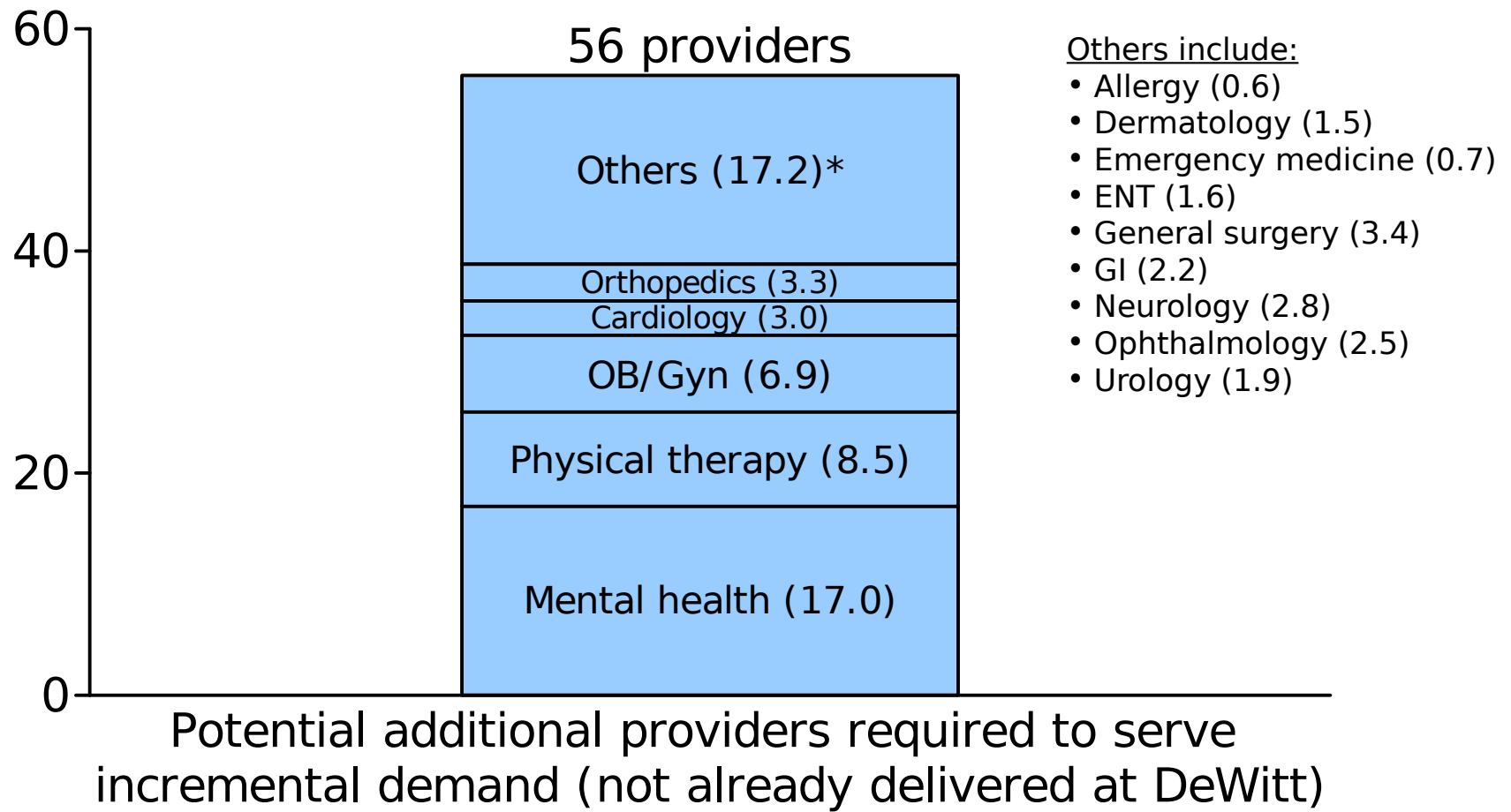
**DRAFT**

Source: SADR 2002; MapInfo

# In aggregate, 56 providers could be allocated to DeWitt via a combination of circuit riders and permanent

**DRAFT**

Required providers based on 2002 demand



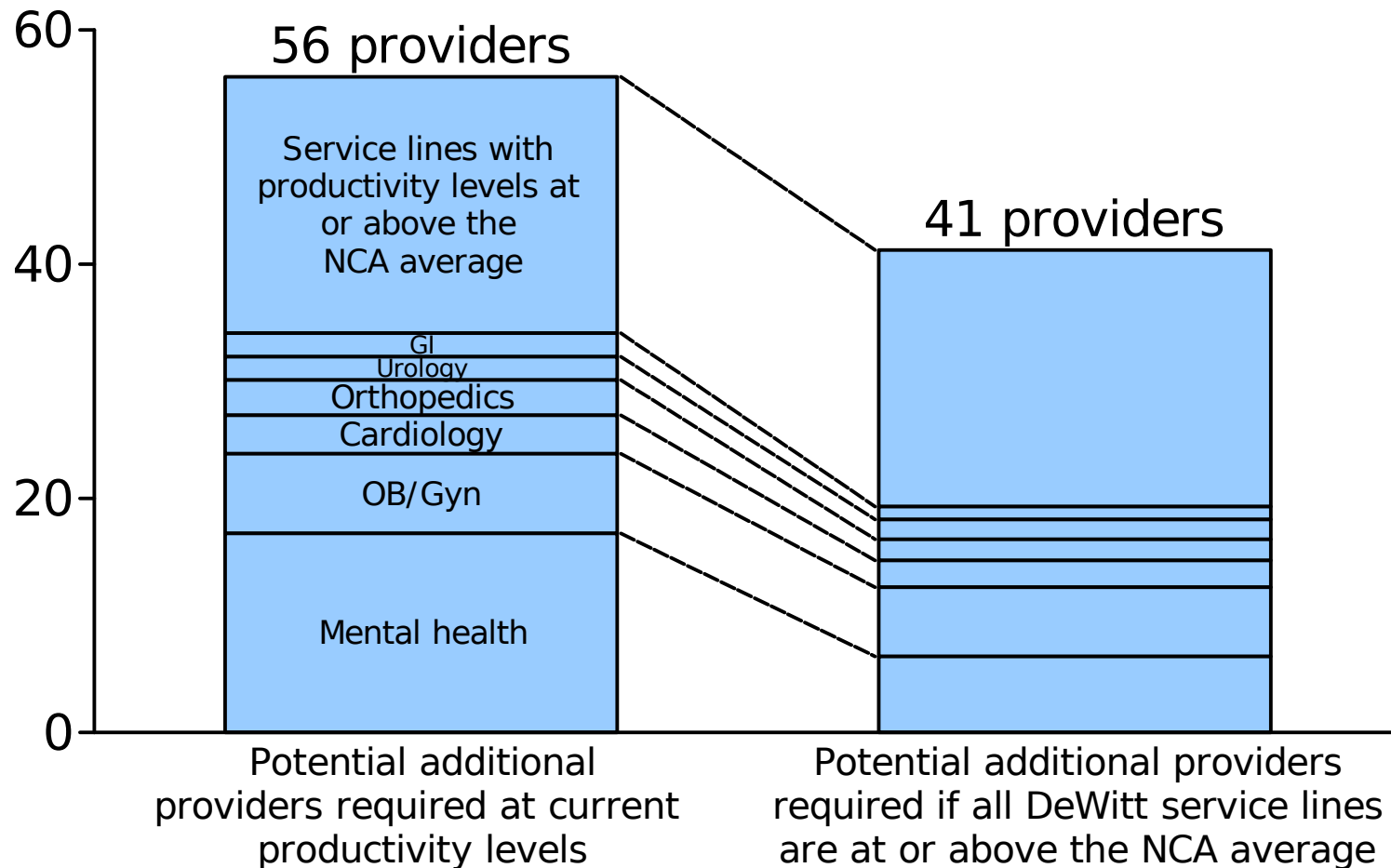
Note: \*Number in parenthesis represents FTEs. Net demand calculated by service line as aggregate Fredericksburg patient demand less demand already handled at DeWitt. Provider requirements were calculated by dividing net demand by the current productivity levels at DeWitt by service line.

Source: SADR 2002; MapInfo

# By achieving NCA average productivity levels in 6 service lines, DeWitt could potentially reduce its

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Required providers  
based on 2002 demand

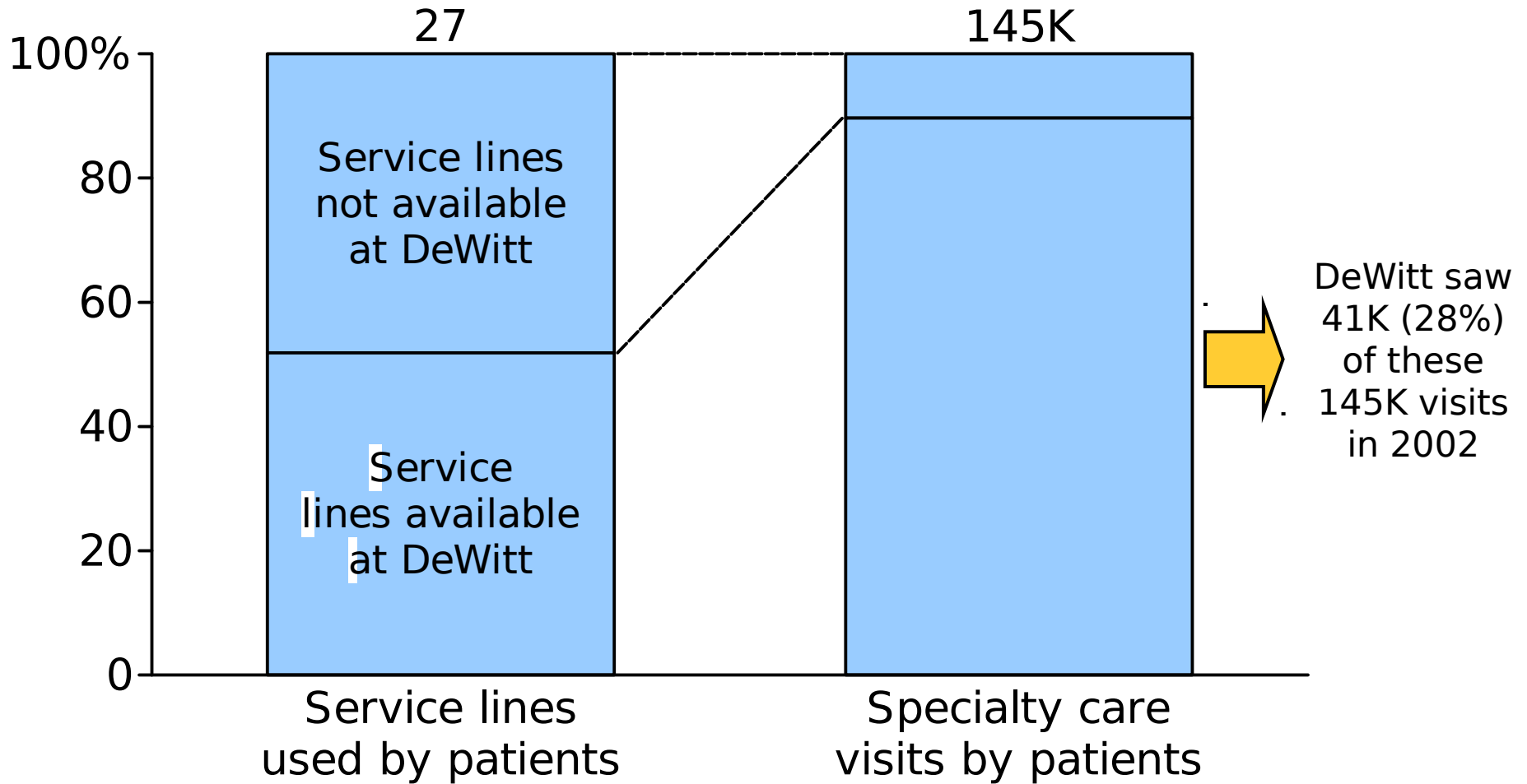


Source: SADR 2002; Bain Manpower Survey; MGMA

# DeWitt offers service lines that account for 90% of I-95 South and Fredericksburg patient specialty care visits

**DRAFT**

Percent of 2002 total I-95 South and Fredericksburg specialty care visits



Note: Specialty service lines used by I-95 South patients that are offered at DeWitt are allergy, cardiology, dermatology, emergency medicine, ENT, general surgery, GI, mental health, neurology, OB/Gyn, ophthalmology, orthopedics, physical therapy and urology.

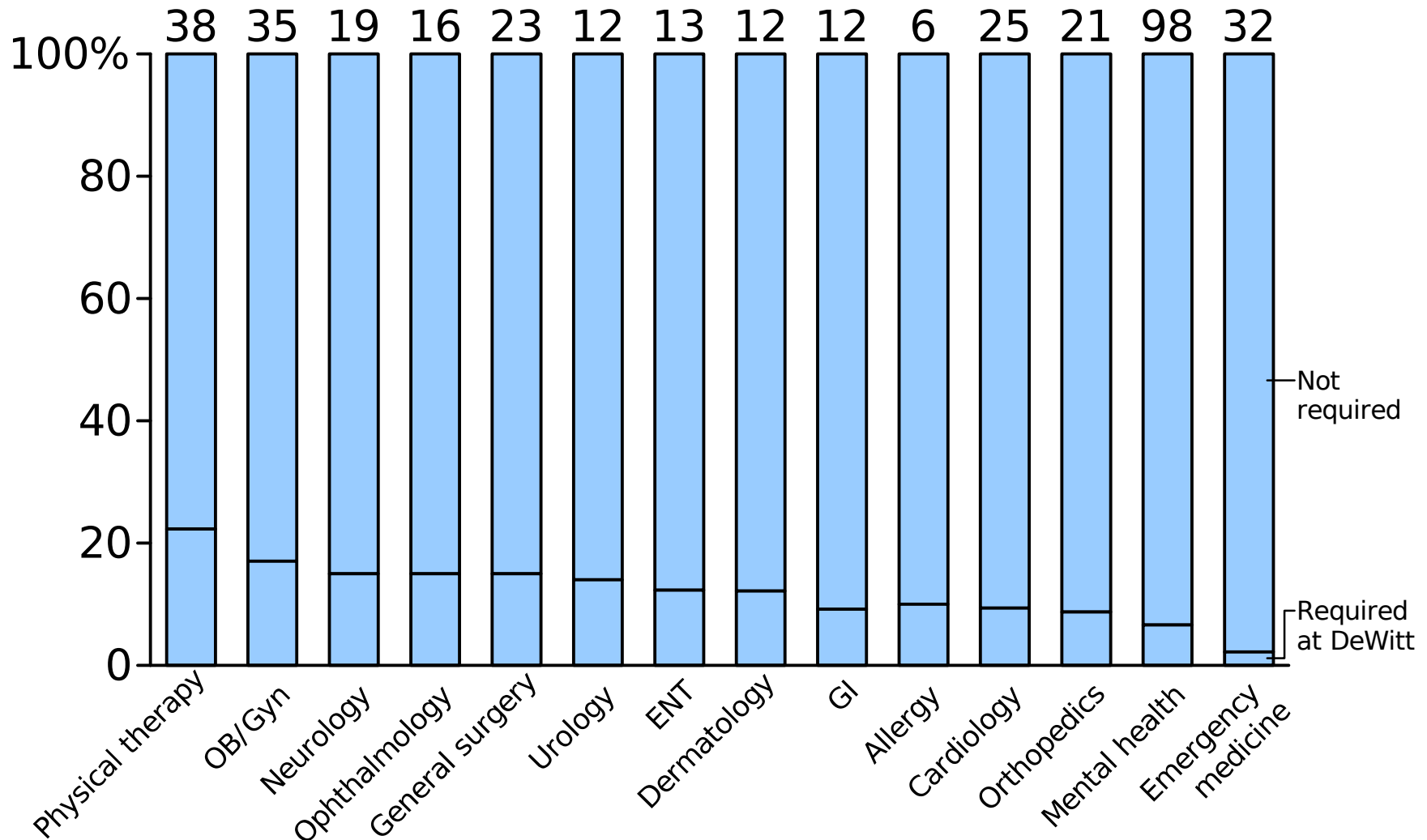
Source: SADR 2002; MapInfo

**DOD 7**

# These 41 providers could potentially come from NNMC and WRAMC, assuming some form of tri-service coordination

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Percent of combined NNMC and WRAMC providers

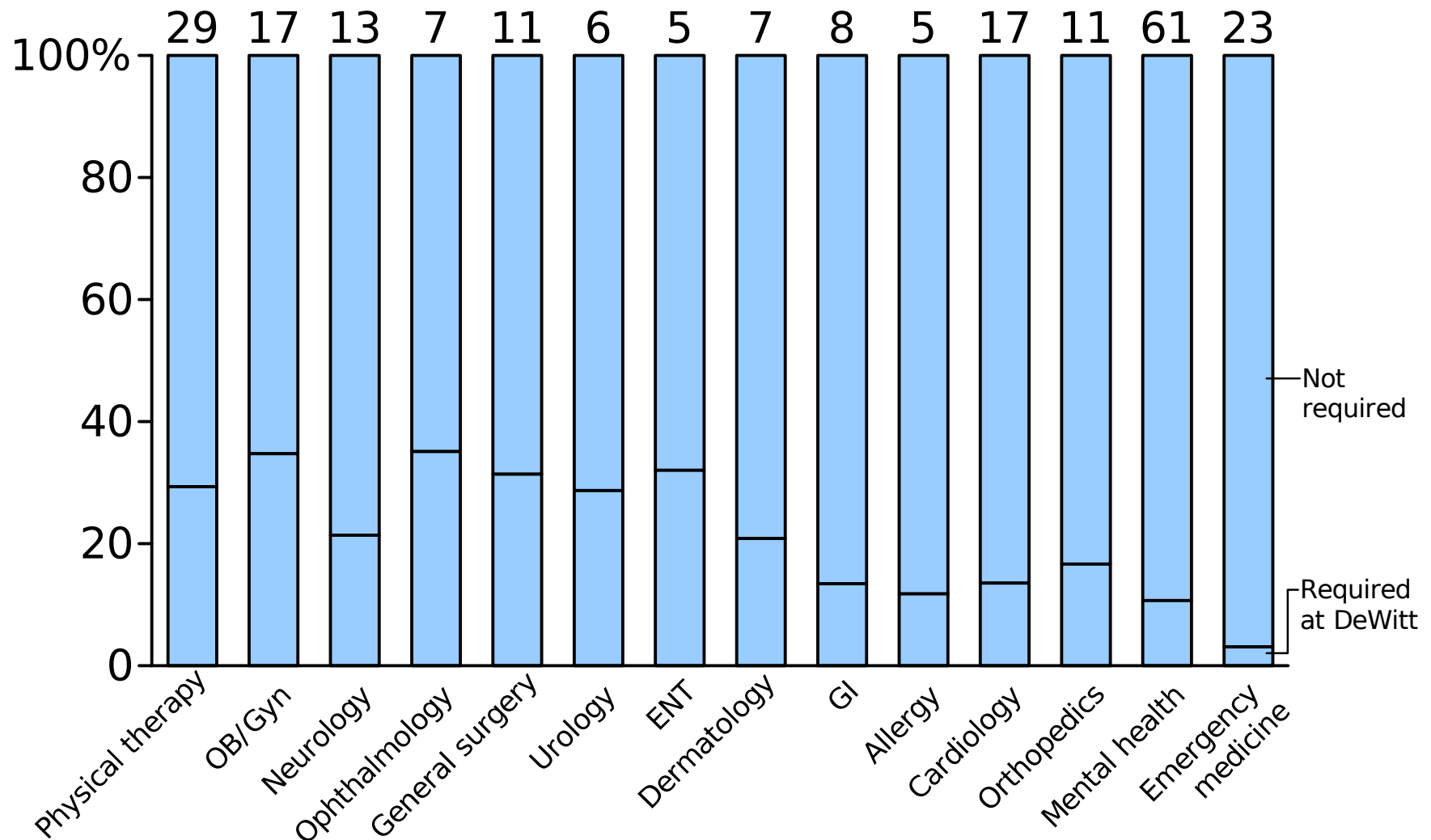


Source: SADR 2002; Bain Manpower Survey

# If all the providers had to come from WRAMC, this could create stress on some WRAMC service lines

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**BACKUP**

Percent of WRAMC providers



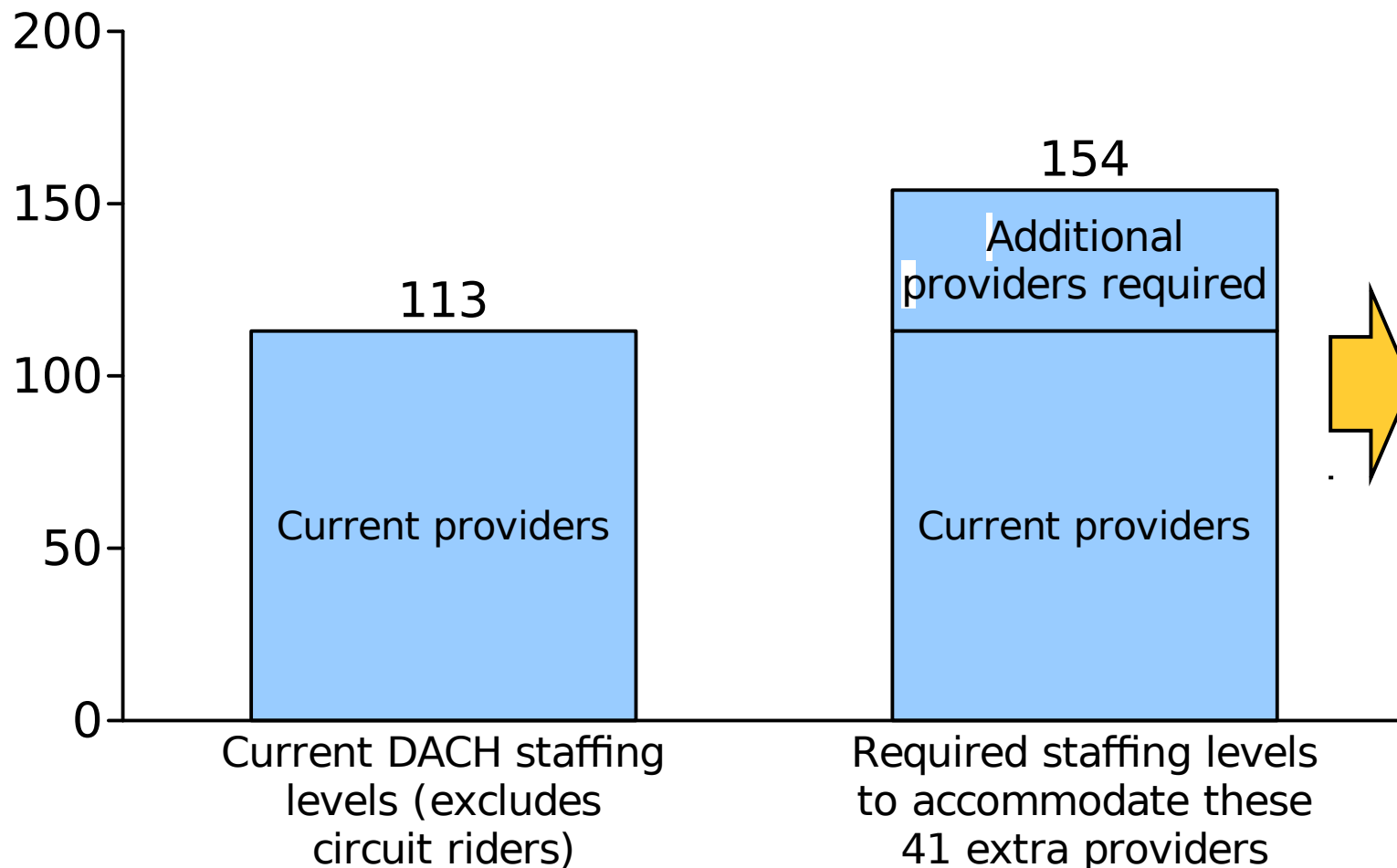
Source: SADR 2002; Bain Manpower Survey



# DeWitt would need to increase its number of providers by about 35% to integrate these 41 providers

**DRAFT**

## Providers supported



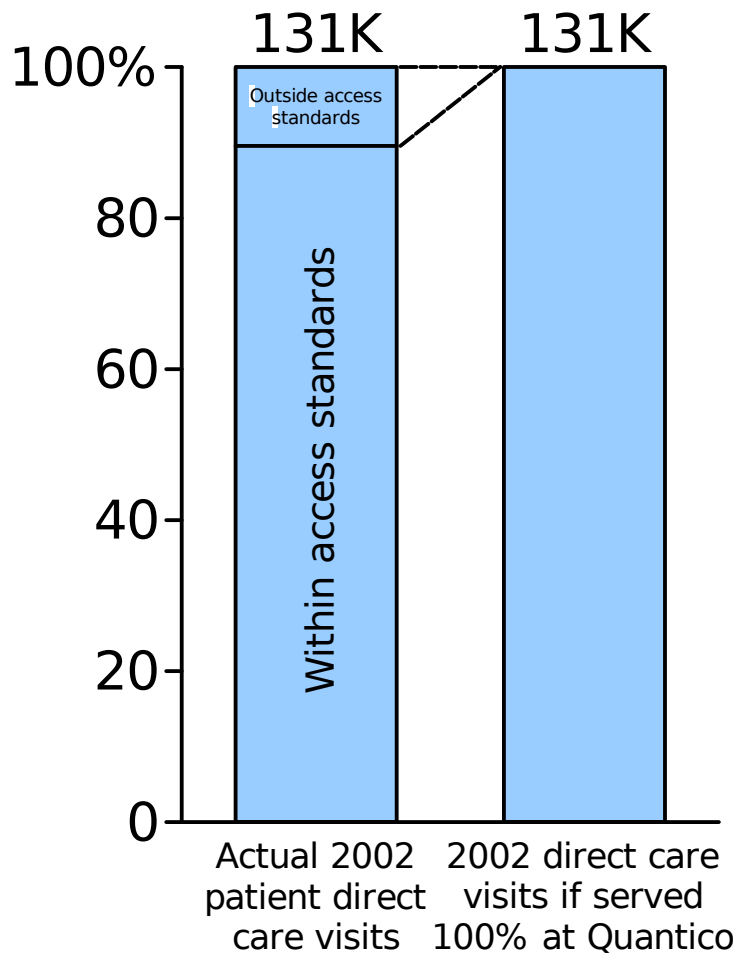
- Current plans at DeWitt only provide for consolidation
- Plans would need to be revised for a ~35% capacity expansion

Source: COL Sutton; Bain Manpower Survey

Quantico could also serve the outside of access specialty care demand from I-95 South and Fredericksburg, though it does not currently offer many of these service lines

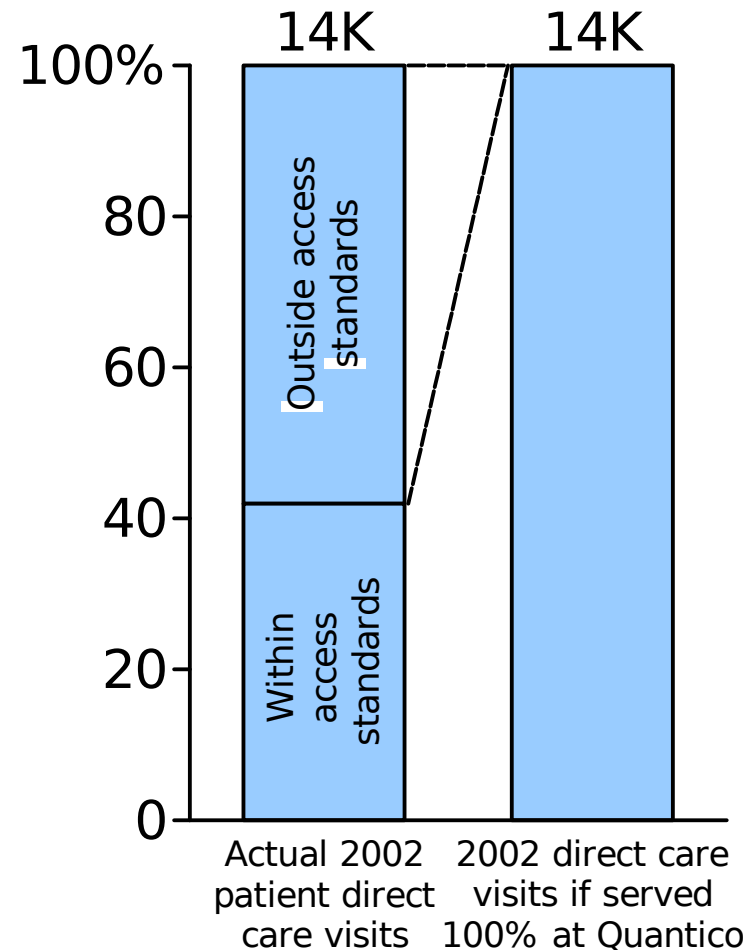
### I-95 South

Percent of I-95 South  
specialty care  
outpatient visits (2002)



### Fredericksburg

Percent of Fredericksburg  
specialty care  
outpatient visits (2002)



**DRAFT**

Source: SADR 2002; MapInfo

# There are three key options for solving access issues in the south

**DRAFT**

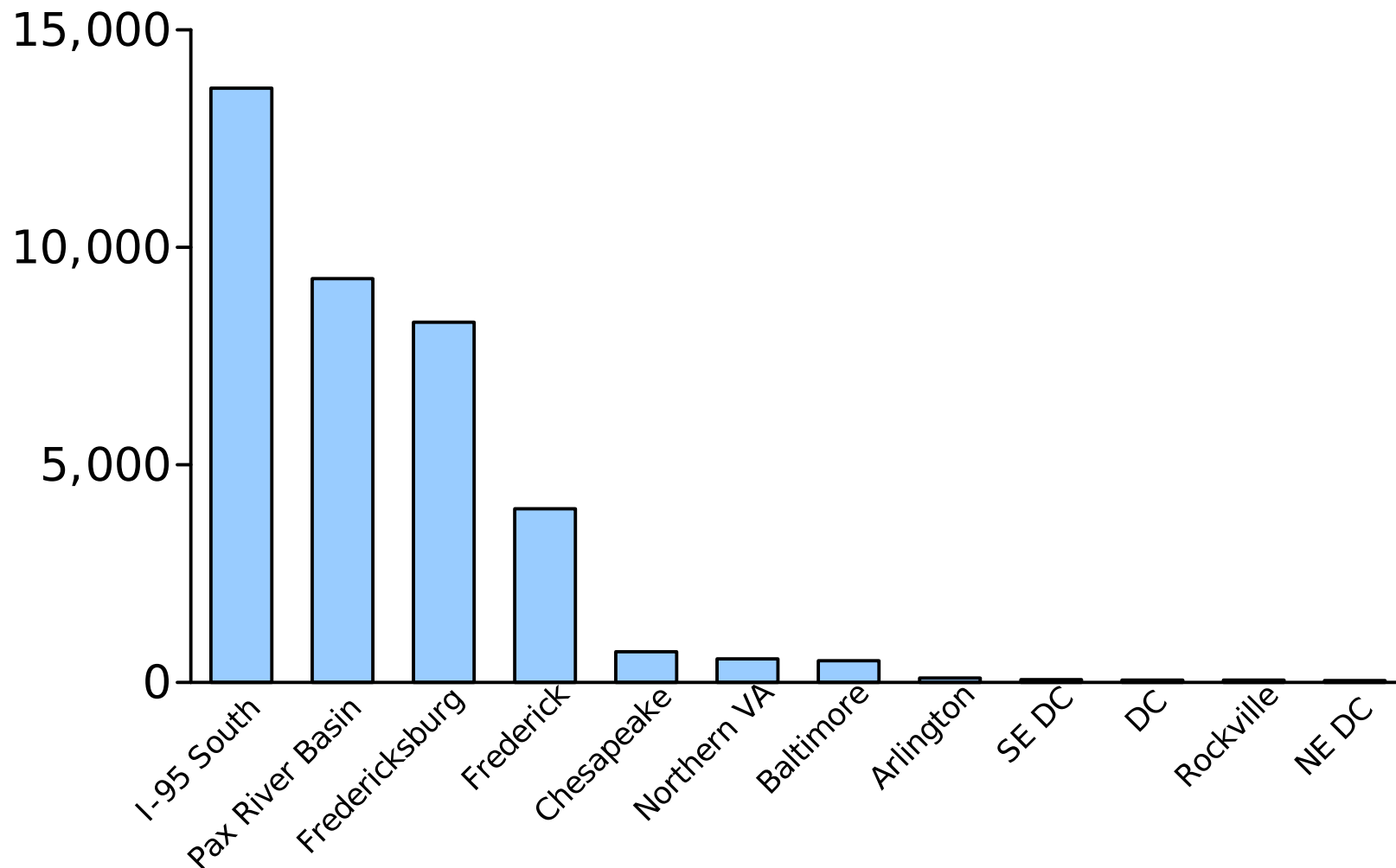
	New ambulatory care center in south	Expand DACH	Expand Quantico
Proposed solution:	<ul style="list-style-type: none"> <li>Establish new facility (about 50-60+ providers) in I-95 South area to provide specialty care to Fredericksburg and I-95 South</li> <li>Clinic could also provide primary care services to I-95 South and parts of Fredericksburg</li> </ul>	<ul style="list-style-type: none"> <li>Expand DeWitt by ~50+ specialty care providers (currently ~113 providers)</li> </ul>	<ul style="list-style-type: none"> <li>Expand Quantico by ~50+ specialty care providers (currently ~30 providers)</li> </ul>
Implementation options:	<ul style="list-style-type: none"> <li>Partnering options:                             <ul style="list-style-type: none"> <li>Private facility (e.g., Mary Washington)</li> <li>VA (e.g., VAMC Richmond)</li> </ul> </li> <li>New MTF                             <ul style="list-style-type: none"> <li>Managed by civilians, or</li> <li>Run by MHS</li> </ul> </li> <li>May still need a primary care clinic for Fredericksburg, potentially contracted with civilians</li> </ul>	<ul style="list-style-type: none"> <li>Revise DACH construction plans to accommodate needed capacity</li> <li>Would still need a primary care clinic for Fredericksburg, potentially contracted with civilians</li> </ul>	<ul style="list-style-type: none"> <li>Add capacity to Quantico and extend hours</li> <li>Would still need a primary care clinic for Fredericksburg, potentially contracted with civilians</li> </ul>
Assessment:	<ul style="list-style-type: none"> <li>If positioned far enough south and expandable, maybe best option to meet future needs</li> </ul>	<ul style="list-style-type: none"> <li>Expanding DACH challenging (geographic constraints and timing)</li> </ul>	<ul style="list-style-type: none"> <li>Quantico expansion may entail doubling of capacity, but land is available and location is viable; timing could be challenging</li> </ul>

**DOD 7**

# Several other regions can be analyzed for specialty care

**DRAFT**  
**BACKUP**

Out-of-standard outpatient specialty care visits (2002)



Source: SADR 2002; MapInfo

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**DOD 7**

# Recommendation 3: Conduct a rigorous business planning process for each clinical service line on a

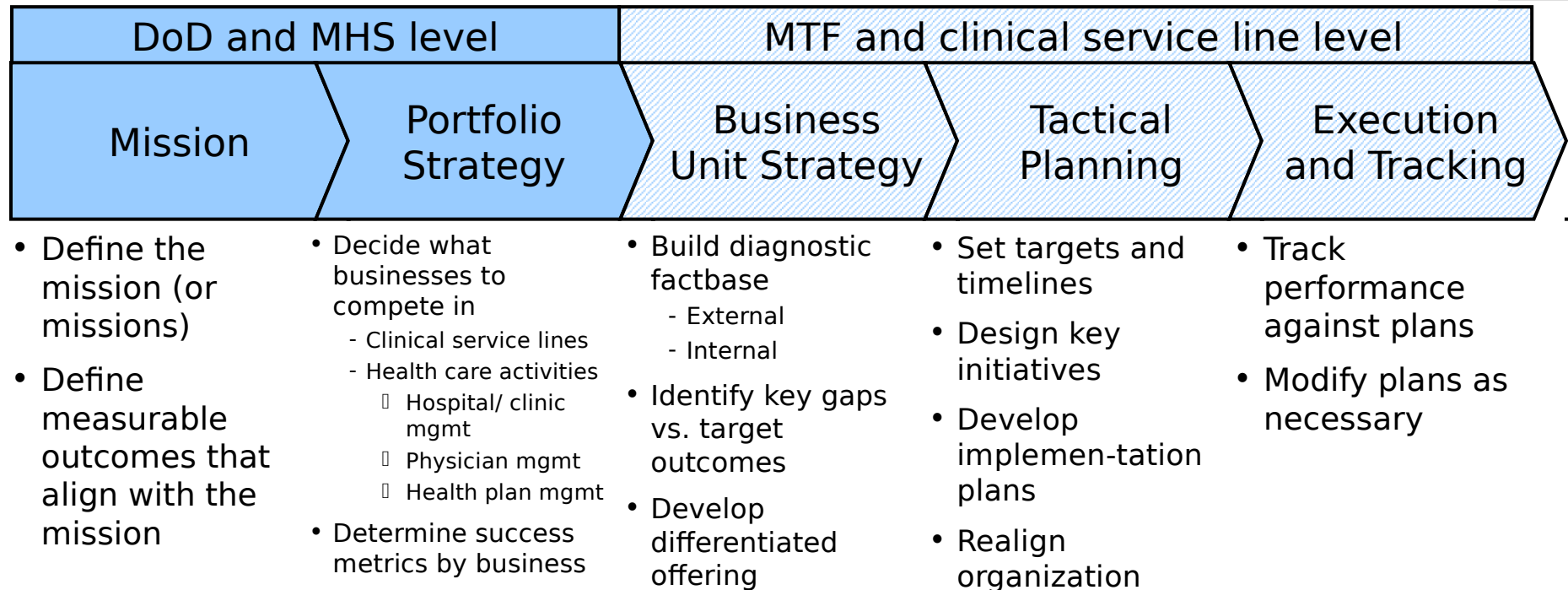
**DRAFT**

- Each clinical service line should create a detailed business plan in order to set strategic direction, assess the current position, and identify key initiatives
  - Business planning needs to be conducted at a tri-service level as the supply of care in the NCA must be coordinated and optimized with respect to the demand of care
  - In some cases, service lines might decide to consolidate as a way to optimize the service line
    - CT surgery at NNMCC and WRAMC is a good example of a consolidation opportunity that reduces costs, improves provider productivity, improves coordination, and likely improves quality
- Pediatrics was selected to demonstrate the business planning process
  - Covers 9% of care in the NCA, serving 175K visits and 1.3K admissions
  - 104 provider equivalents
  - Identified as potentially under-productive in the initial review versus civilian benchmarks
- General pediatrics is under-productive vs. private practice benchmarks
  - To maintain current staffing, general pediatrics would need to recapture 3.7x all purchased care visits
  - This translates to an excess of 35 providers vs. private practice benchmarks
- Sub-specialty pediatrics are under-productive vs. academic benchmarks
  - To maintain current staffing, pediatric sub-specialties would need to recapture all purchased care visits
  - This translates to an excess of 5 providers vs. academic practice benchmarks
- Geographic redistribution of 6.1 general pediatric provider equivalents and 1.0 pediatric sub-specialty provider equivalents is required
  - 5 general pediatrics provider equivalents should be relocated to existing MTFs (primarily Kimbrough, Woodbridge and Quantico)
  - 1.1 general pediatrics provider equivalents should serve patients in a new southern MTF
  - A child development circuit rider should be deployed to serve Quantico and Pax River
- In order to maintain the current size of fellowship programs, sub-specialty lines will need to assess their ability to source outside referral workload, increase attrition, scale back program sizes, or relocate providers to ONCA, assuming demand exists

**DOD 7**

# We recommend applying best demonstrated strategic planning processes for the MHS

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• **Rarely**

• **Every 5 years**

• **Every 2-3 years**

• **Annually**

• **On-going**

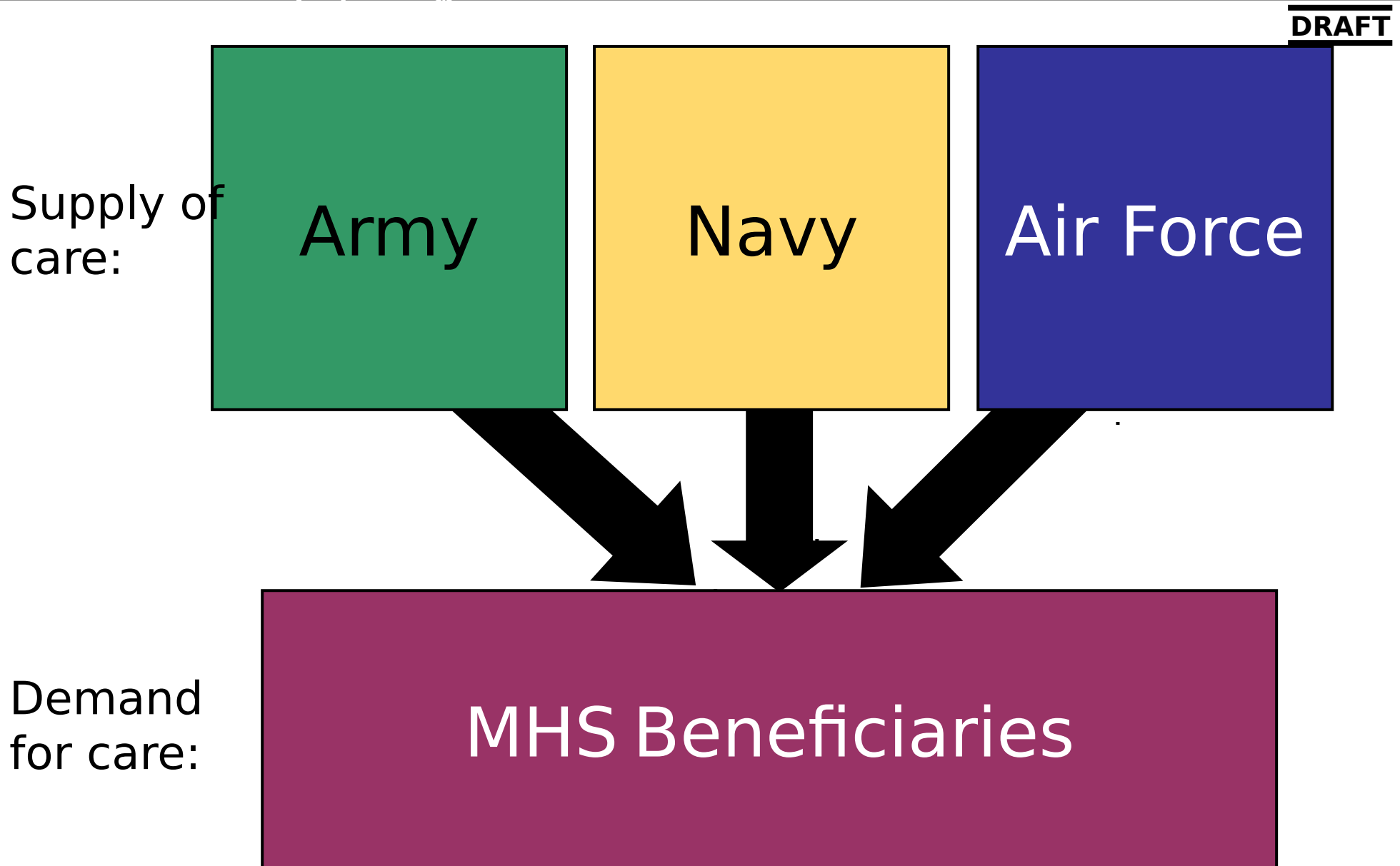
**DOD 7**

# Why do business planning for clinical service lines?

**DRAFT**

- Set strategic direction and targets by key outcome area
- Understand key challenges facing the service line (gaps vs. target outcomes)
- Identify key initiatives/redesign priorities
- Reallocate resources (human and capital) and realign organization
- Monitor progress vs. targets

It is key to do joint / coordinated tri-service planning as Army, Navy and Air Force are all trying to serve the



\*Consolidation of clinical service lines across the three Services is one option to improve coordination

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# Dashboards can be used to track and report service line performance vs. the business plan

**DRAFT**

## Market share

Metric	Previous year	Previous quarter	Current value	Next year projected	Target value
Direct/(direct+purshased)					

## Total volume

Metric	Previous year	Previous quarter	Current value	Next year projected	Target value
Outpatient direct visits					
Outpatient purchased visits					
Outpatient prime purchased visits					

## Access

Metric	Previous year	Previous quarter	Current value	Next year projected	Target value
% Open specialty appointments next 30 days					
Leakage rate					

## Provider productivity

Metric	Previous year	Previous quarter	Current value	Next year projected	Target value
# Visits per Clinical FTE					

## Provider headcount (FTEs)

Metric	Previous year	Previous quarter	Current value	Next year projected	Target value
# Staff					
# Residents					
# Fellows					
# NPPs					

## Pathology case mix

Metric	Previous year	Previous quarter	Current value	Next year projected	Target value
# index cases seen					

## Clinical quality

Metric	Previous year	Previous quarter	Current value	Next year projected	Target value
Morbidity rates					
Mortality rates					

## Patient satisfaction (with care and appointment making)

Metric	Previous year	Previous quarter	Current value	Next year projected	Target value
Satisfaction with medical care					
Ease of appointment making by phone					

## GME adequacy (if applicable)

Metric	Previous year	Previous quarter	Current value	Next year projected	Target value
Board pass rates					

## Readiness

Metric	Previous year	Previous quarter	Current value	Next year projected	Target value
Deployable billets/wartime taskings					
Deployable personnel					

**DOD 8**

# We have selected the pediatrics service line to do high level business planning

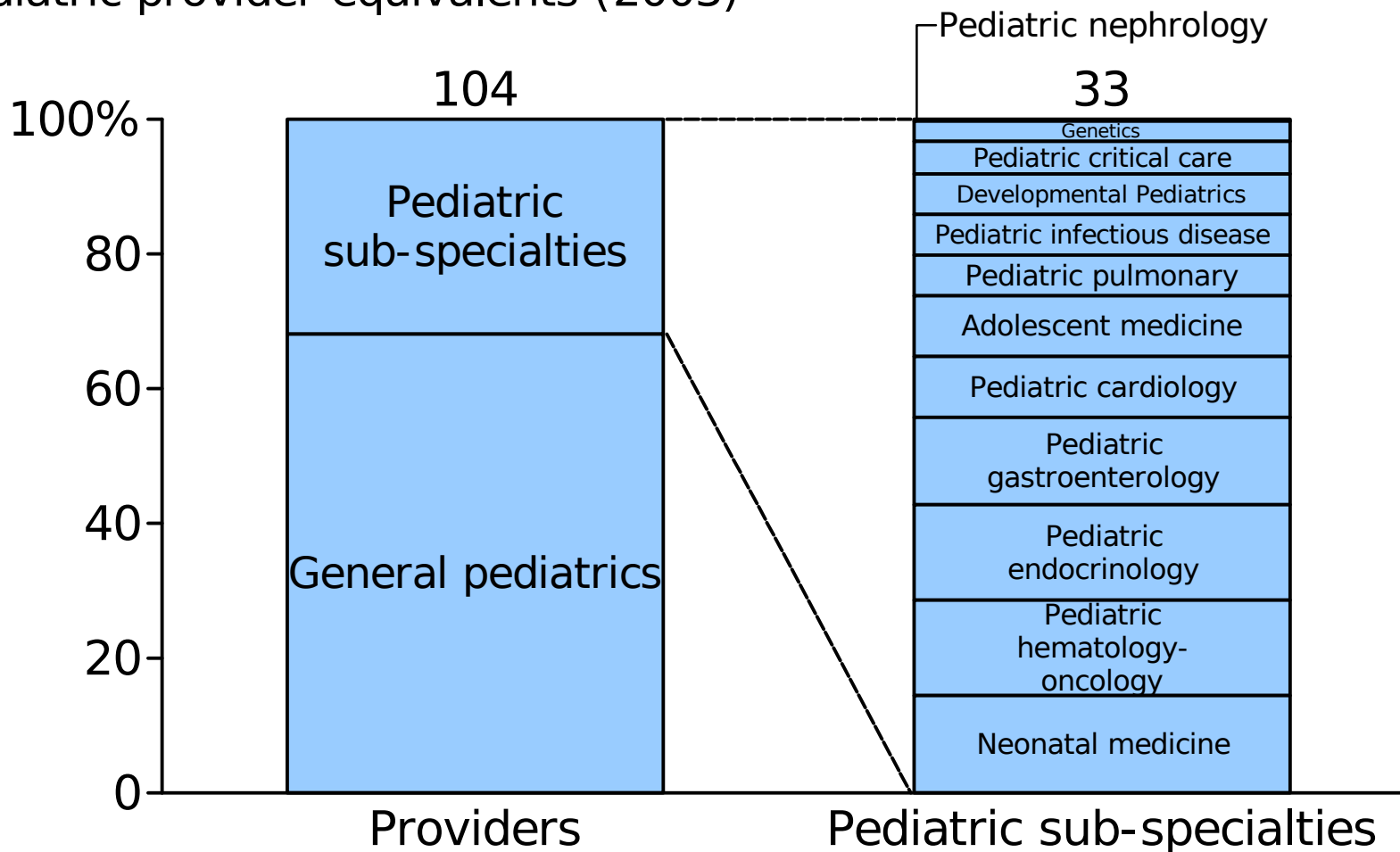
**DRAFT**

- A large clinical service line within the NCA military health system
  - 9% of all visits in the NCA, serving 175K visits and 1.3K admissions
  - 104 provider equivalents
- Identified from high-level overview as potentially under-productive vs. civilian benchmarks
- Highly complex line (multiple sub-specialties) which would benefit from a detailed assessment

# There are 104 pediatrics providers in the NCA, 34% of which are sub-specialists

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Pediatric provider equivalents (2003)



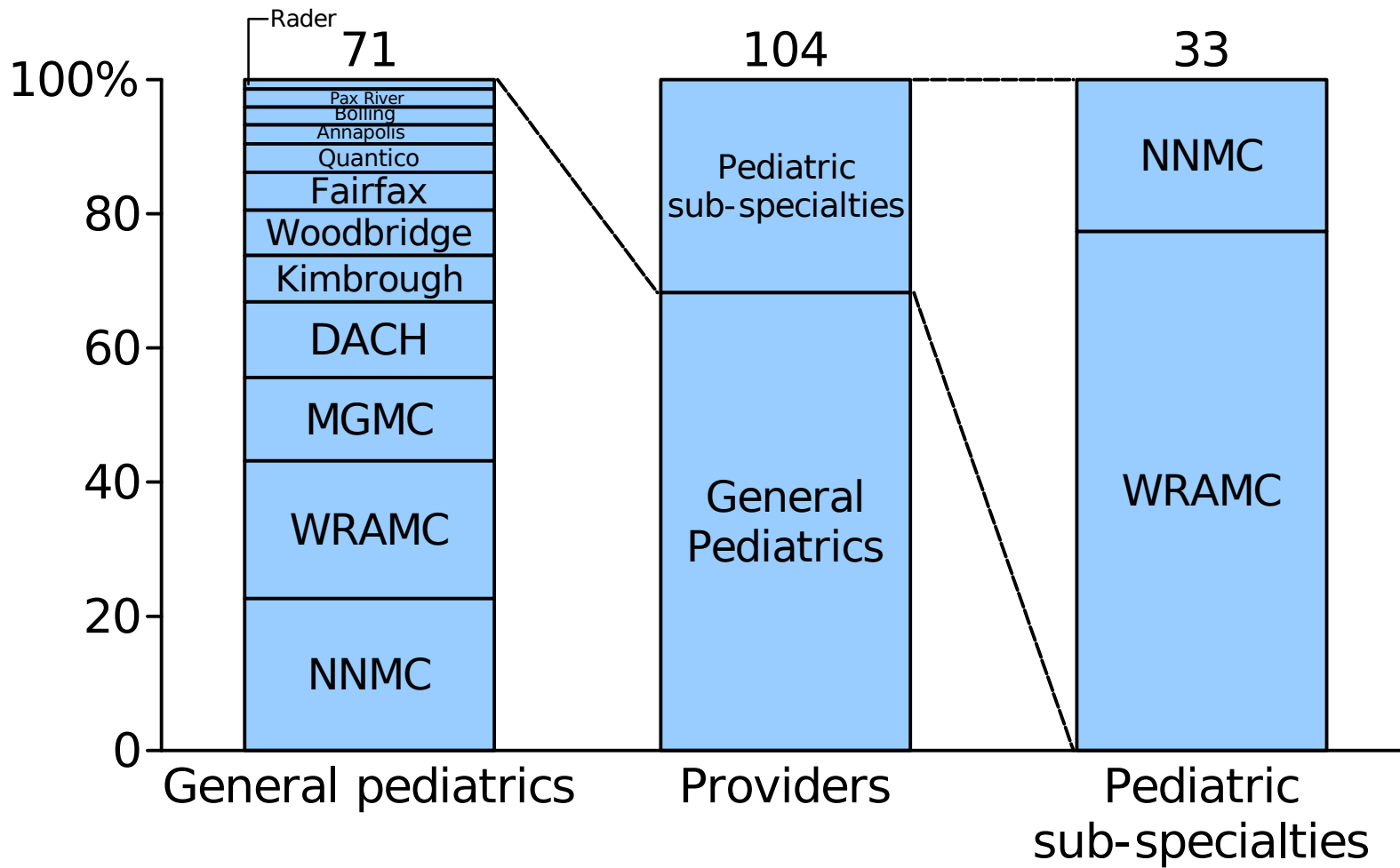
Note: Non-physician providers are counted as 90% of a provider, fellows as 70% and residents as 35%.

Source: Pediatrics Interviews; Bain Manpower Survey

# General pediatrics provides care across multiple MTFs, whereas sub-specialists are concentrated at

**DRAFT**

## Pediatric provider equivalents (2003)



Note: Non-physician providers are counted as 90% of a provider, fellows as 70% and residents as 35%.

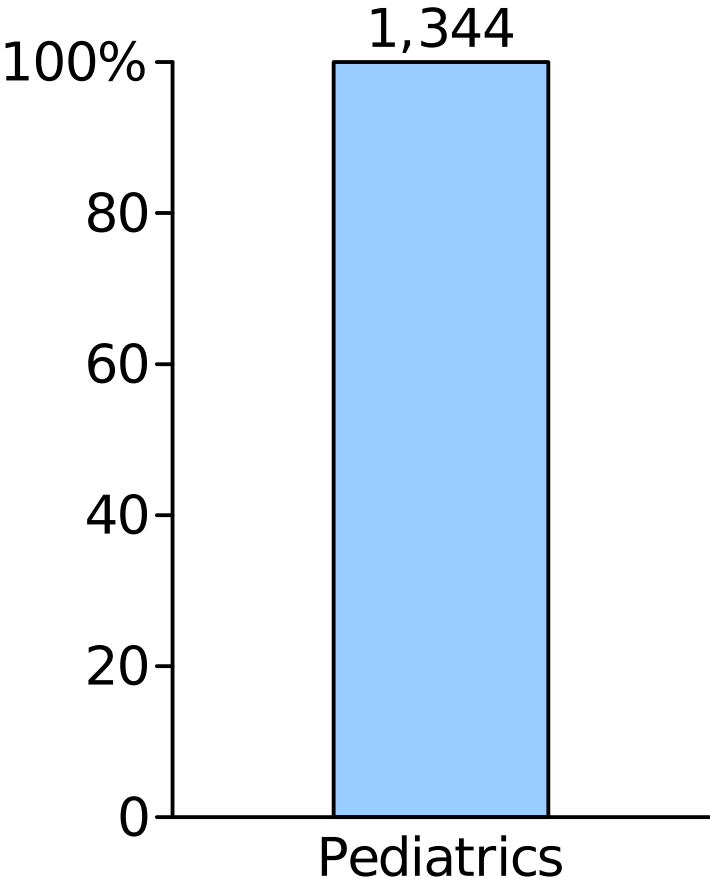
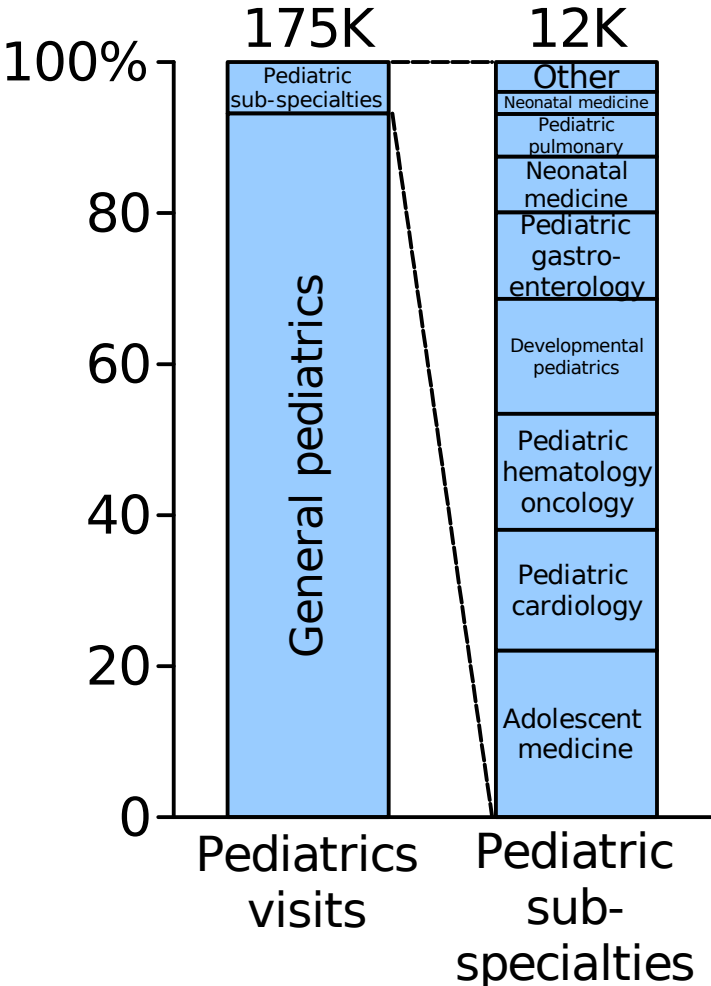
Source: Pediatrics Interviews; Bain Manpower Survey

# These 104 pediatrics providers serve 175K visits per year and 1.3K admissions

**DRAFT**

Outpatient visits

Inpatient admissions

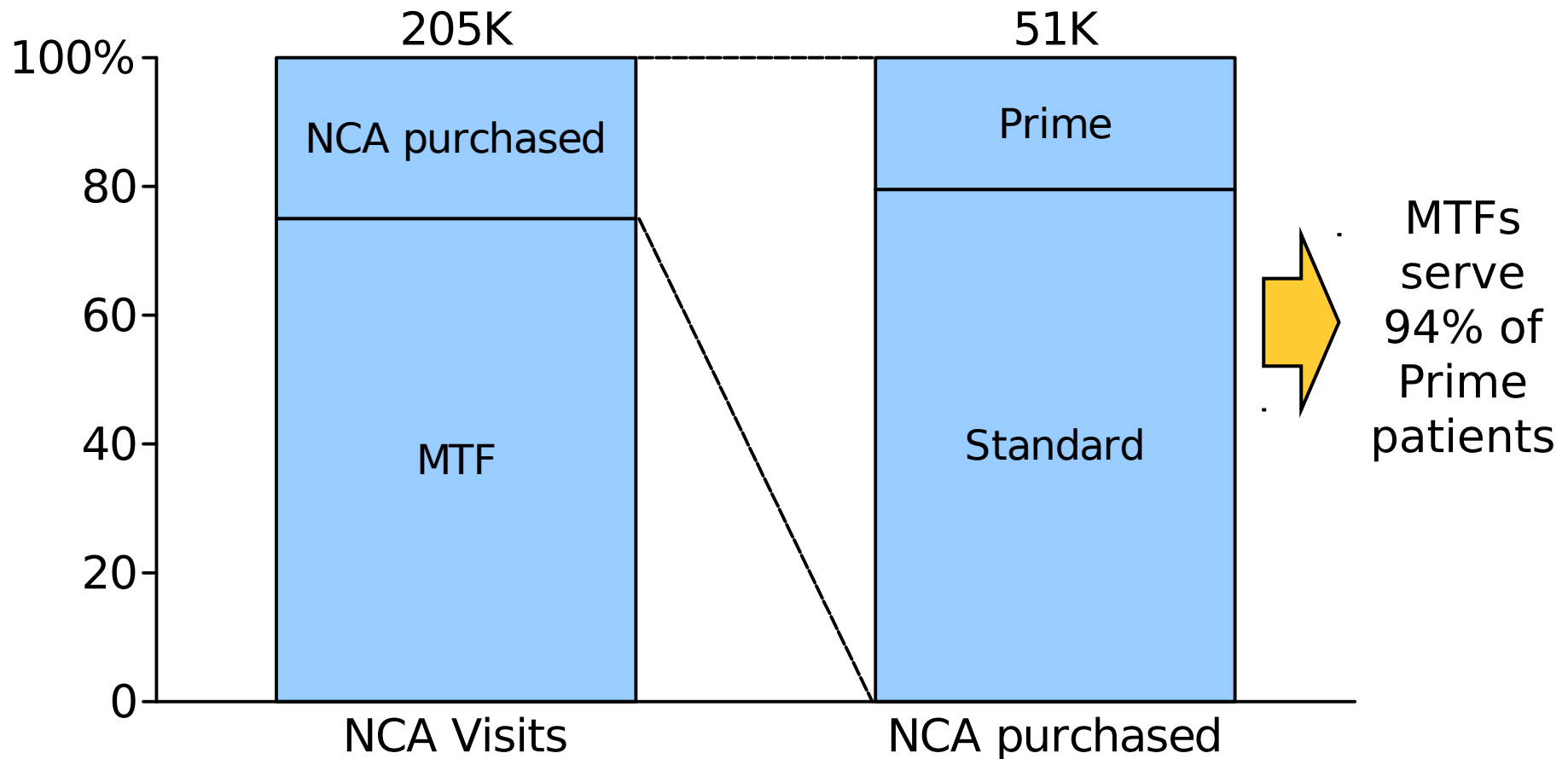


Note: Includes ONCA; Outpatient visits and inpatient admissions are 2002.  
Source: SADR Database

# MTFs serve 75% of NCA pediatrics demand; most of purchased care is from standard patients

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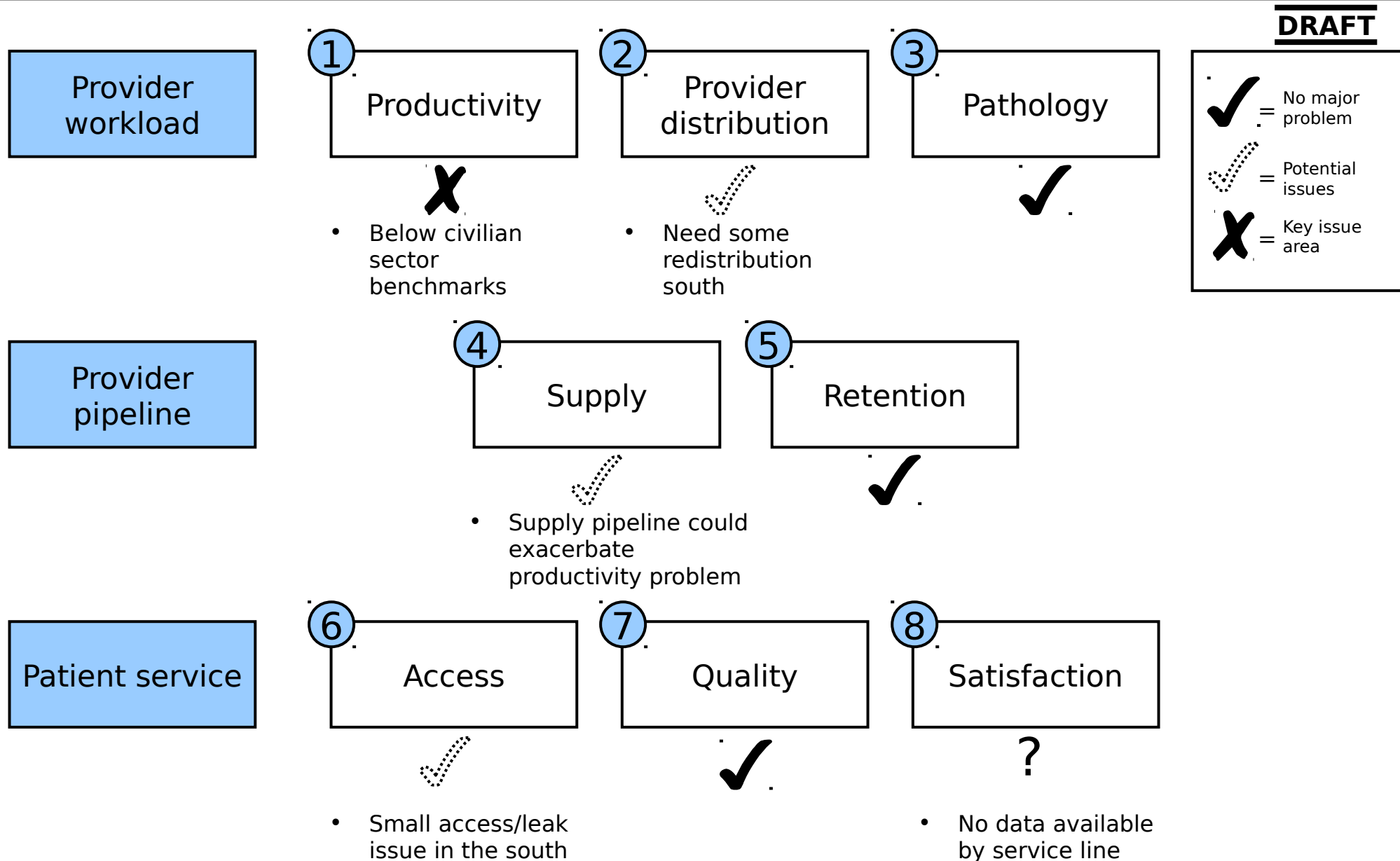
Pediatrics visits from within NCA (2002)



Note: Excludes ONCA.

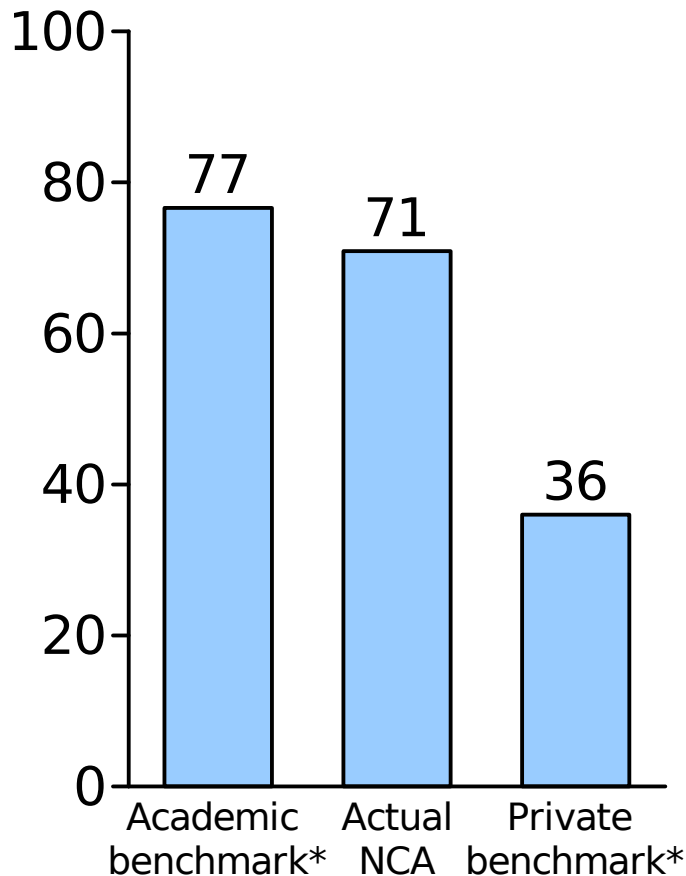
Source: SADR Database; NCA Working Group

# We have conducted a high level diagnostic along 8 critical areas



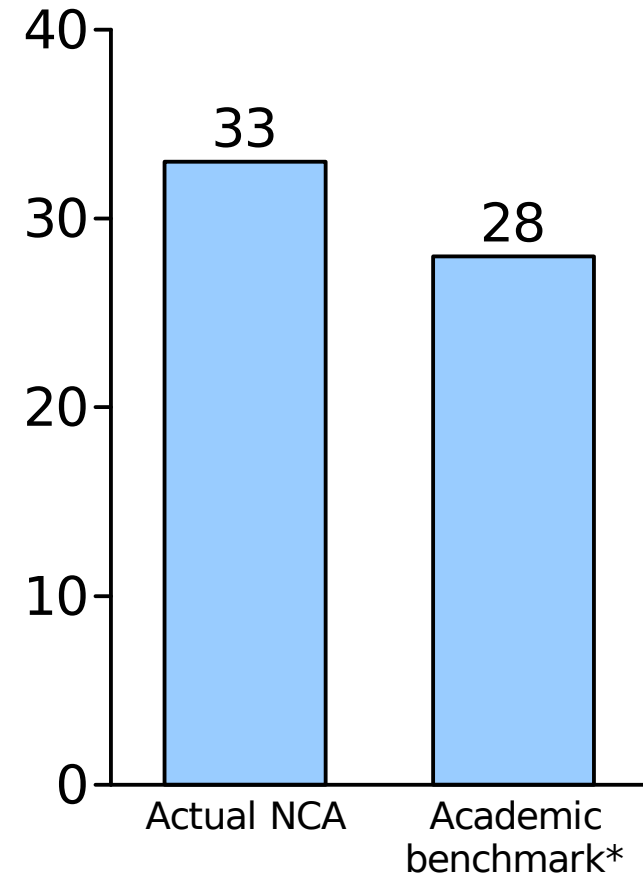
# Current productivity implies general pediatrics has an oversupply of 35 provider equivalents relative to private practice benchmarks; sub-specialties have an oversupply of 5 provider equivalents

General pediatric provider equivalents (2003A)



**Excess of 35 provider equivalents vs. private benchmarks**

Pediatric sub-specialty provider equivalents (2003A)



**Excess of 5 provider equivalents vs. academic benchmarks**

**DRAFT**

\*Required to serve current demand

Source: SADR Database; Pediatrics Interviews; Pediatrics Visits Databases; MGMA

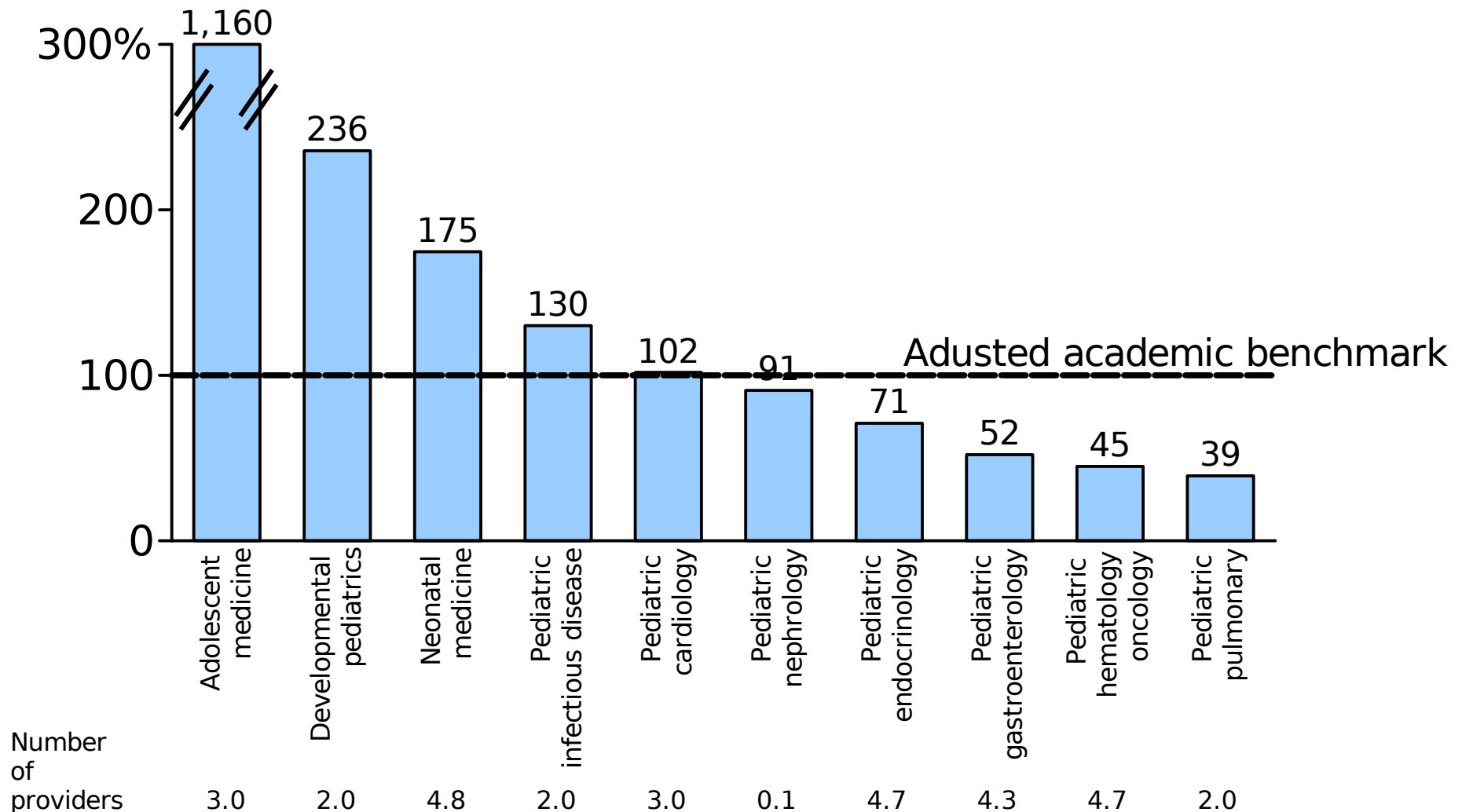
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# Productivity by pediatric sub-specialty versus civilian benchmarks varies by sub-specialty

**DRAFT**

Provider productivity as a percent of adjusted academic benchmark



Note: Adolescent medicine is 91% of MGMA private practice benchmark; Developmental pediatrics is 15% of private practice; excludes critical care and genetics; Provider productivity is 2003 provider headcount and FY2002 visits.

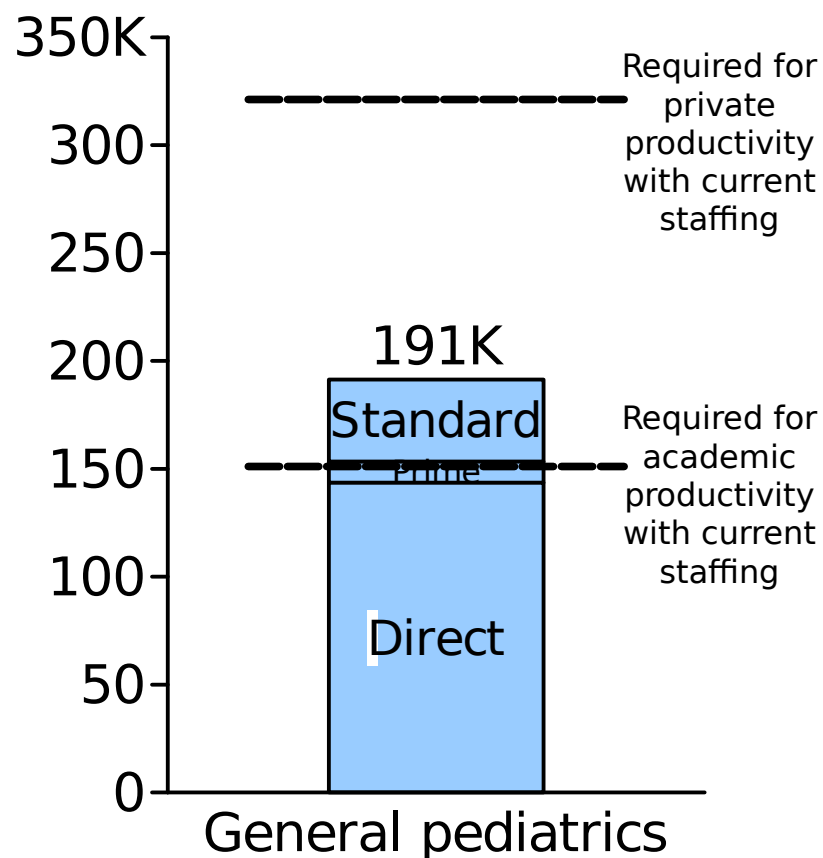
Source: SADR Database; Pediatrics Interviews; Pediatrics Visits Databases; MGMA

**DOD 8**

# General pediatrics does not have sufficient demand within the NCA to reach private productivity benchmark; Sub-specialties would need to capture all NCA purchased care to reach academic

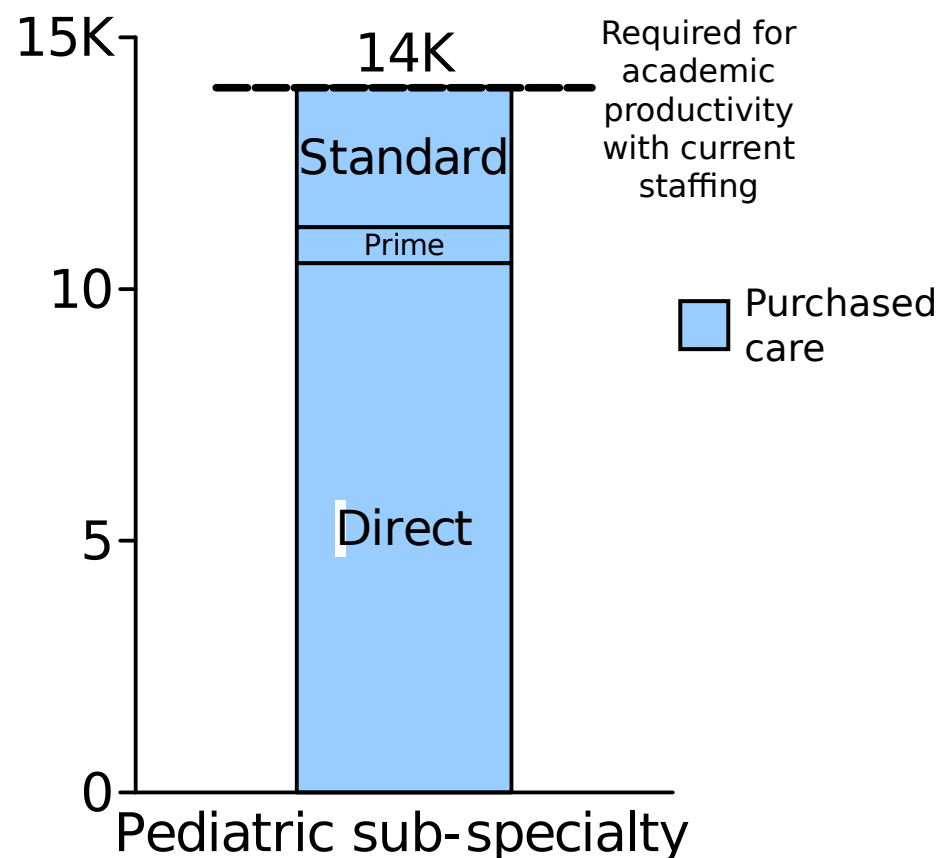
**DRAFT**

Visits from within NCA (2003E)



**Gap of required visits to attain private productivity with current staffing is 3.7x all purchased care visits**

Visits from within NCA (2003E)



**Gap of required visits to attain private productivity with current staffing is 1x all purchased care visits**

Note: Assumes that the distribution of purchased care is the same as that of direct care.

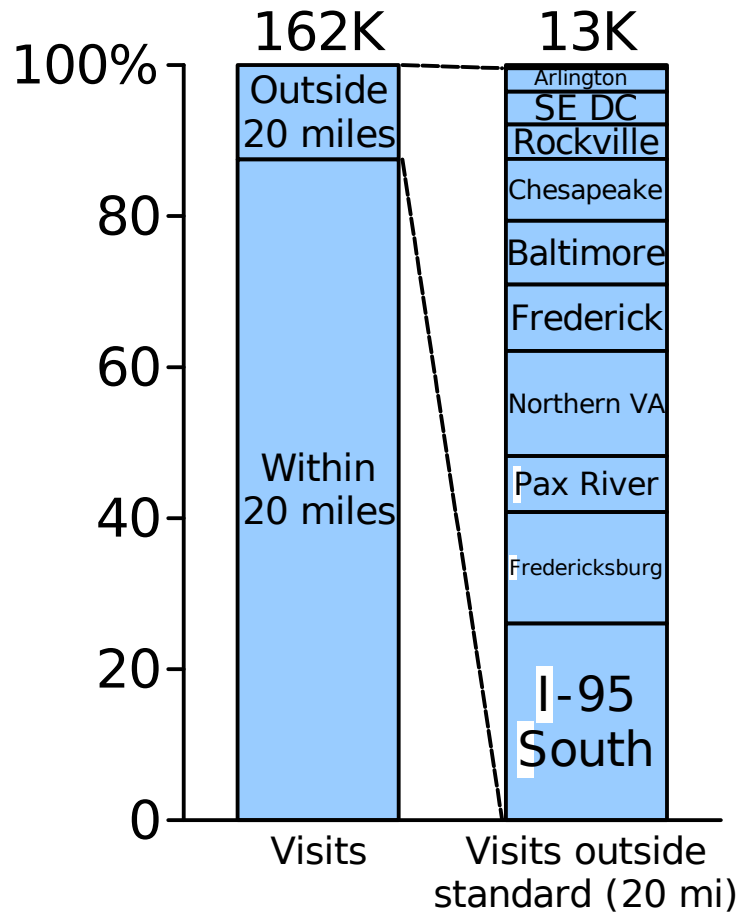
Source: SADR Database; Pediatrics Interviews; Pediatrics Visits Databases; MGMA

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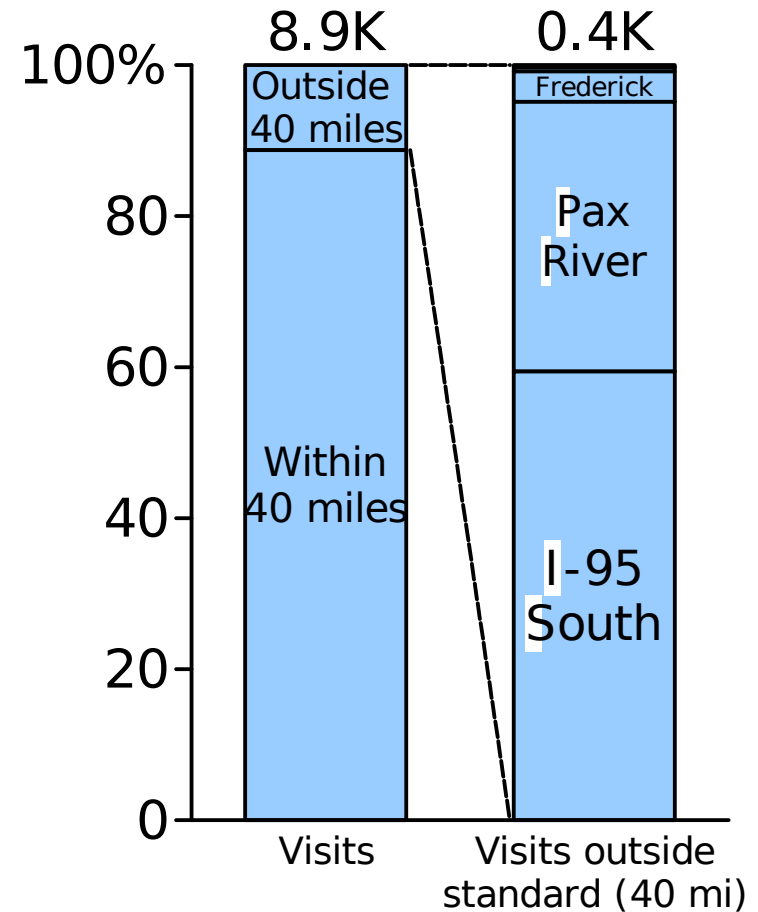
# I-95 South, Pax River, and Fredericksburg account for 50% of access problems within NCA for general

**DRAFT**

Source of general  
pediatrics visits  
to NCA MTF's (2002)



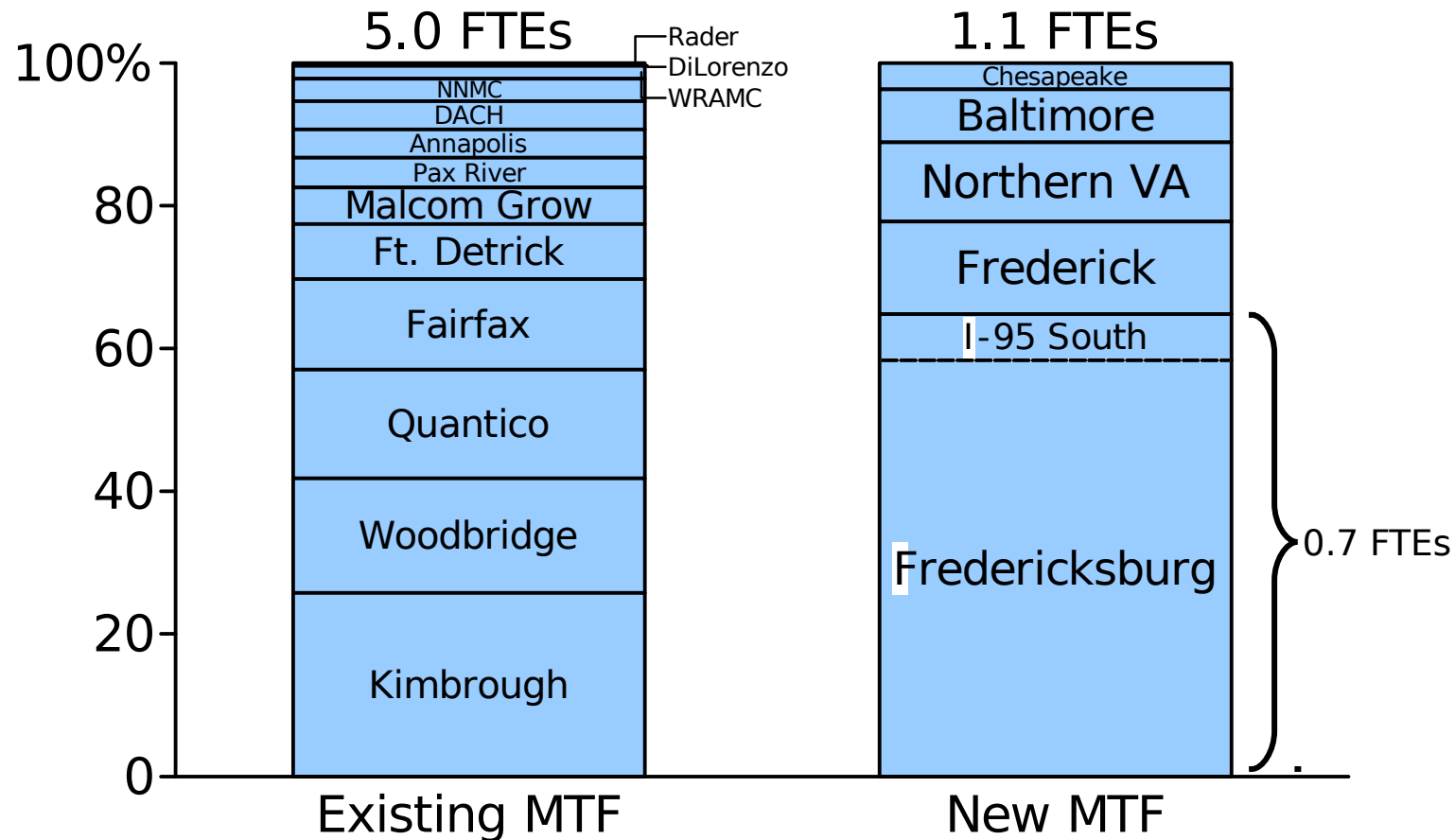
Source of pediatric  
sub-specialty visits  
to NCA MTF's (2002)



# Most of the general pediatrics visits can be served within access standards by relocating providers to existing MTFs;

**DRAFT**

Full or partial (circuit riders) relocation of providers to match demand within NCA

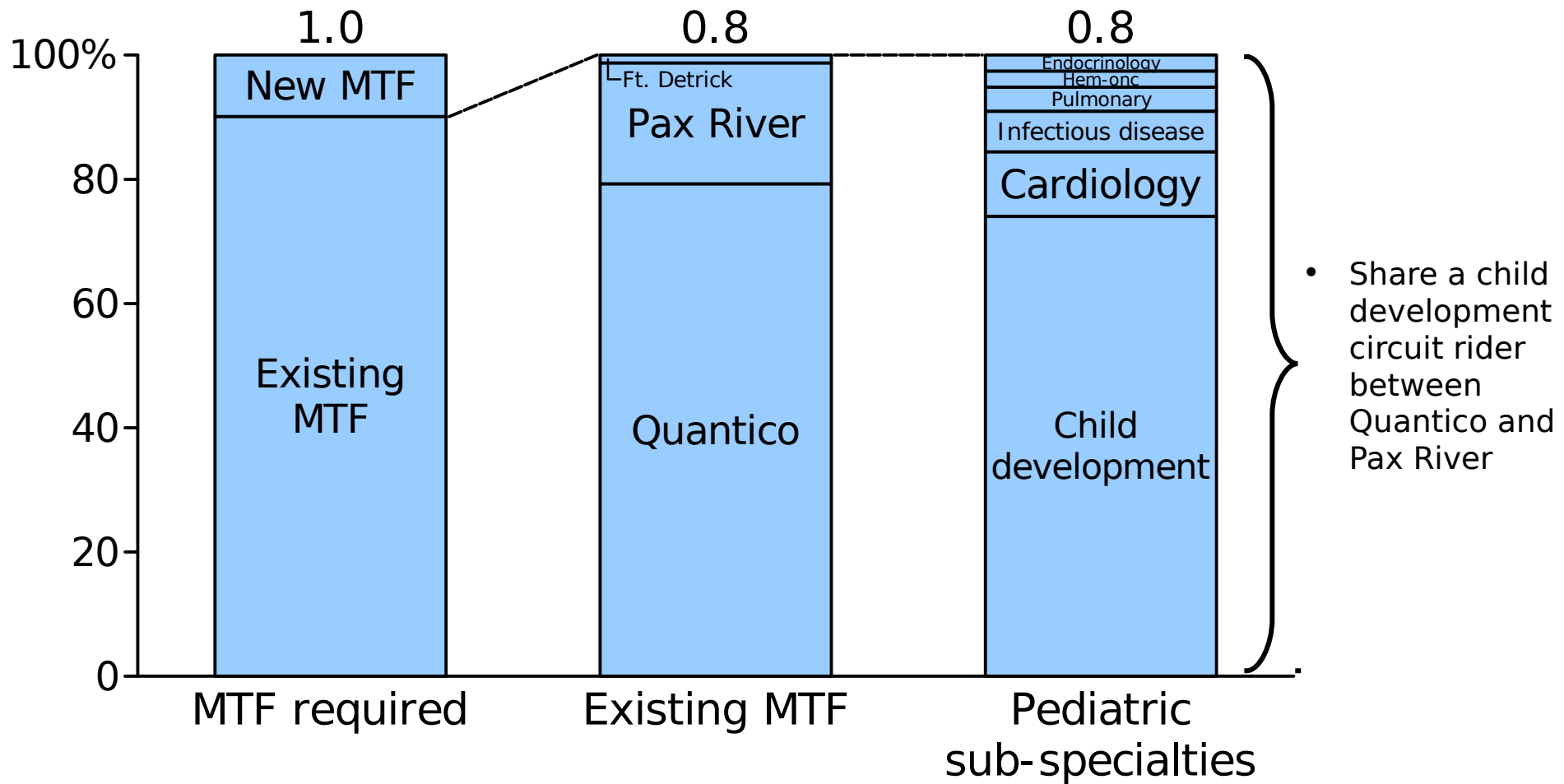


Source: SADR; Bain Mapping; MGMA; Bain Manpower Survey

# Most sub-specialty visits can be met within access standards by relocating a child development circuit rider

**DRAFT**

Full or partial (circuit riders) relocation of pediatrics sub-specialty providers to match demand within NCA

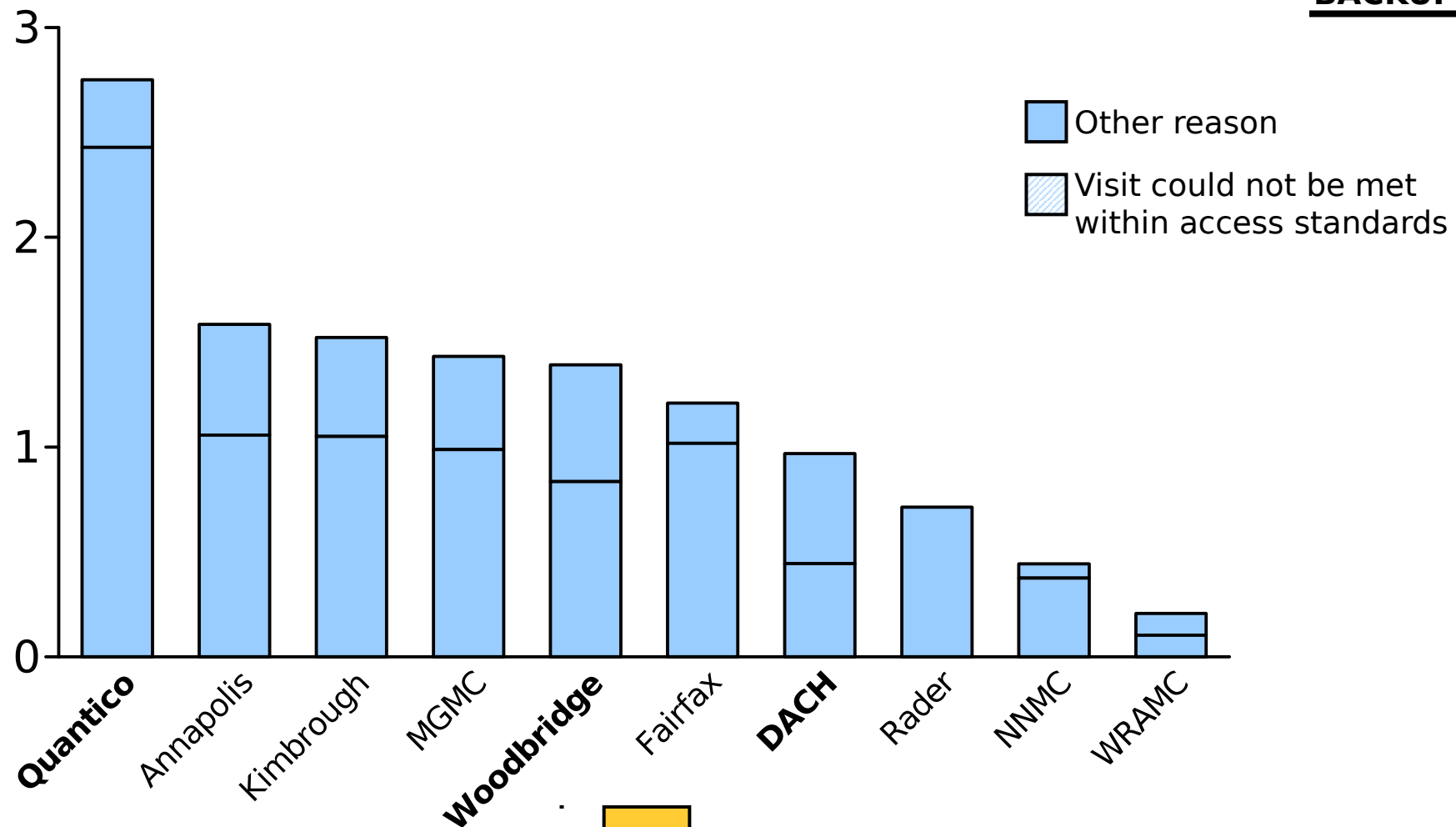


Source: SADR; Bain Mapping; MGMA; Bain Manpower Survey

# Leakage is not generally a problem, though it appears worse in the south

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**BACKUP**

2002 Referrals per 1,000 potential patients (visits and referrals)

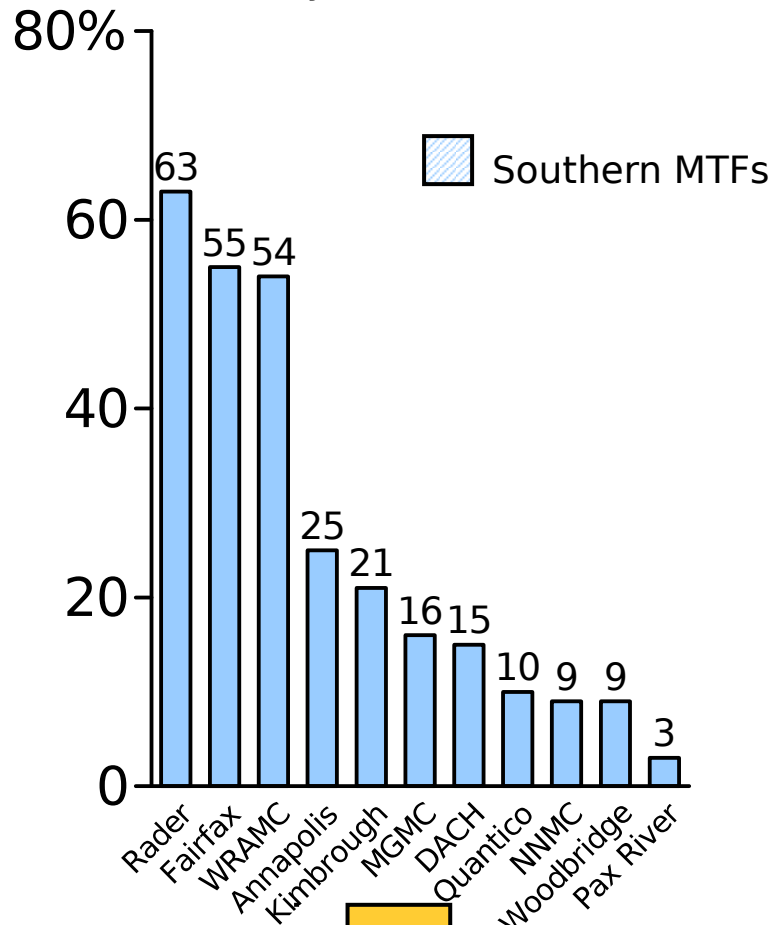


**Higher leakage in south (Quantico); good elsewhere**

# Patient access is good, though it appears worse in the south

## General pediatrics

Average percent routine visits open over next 7 days (2003)



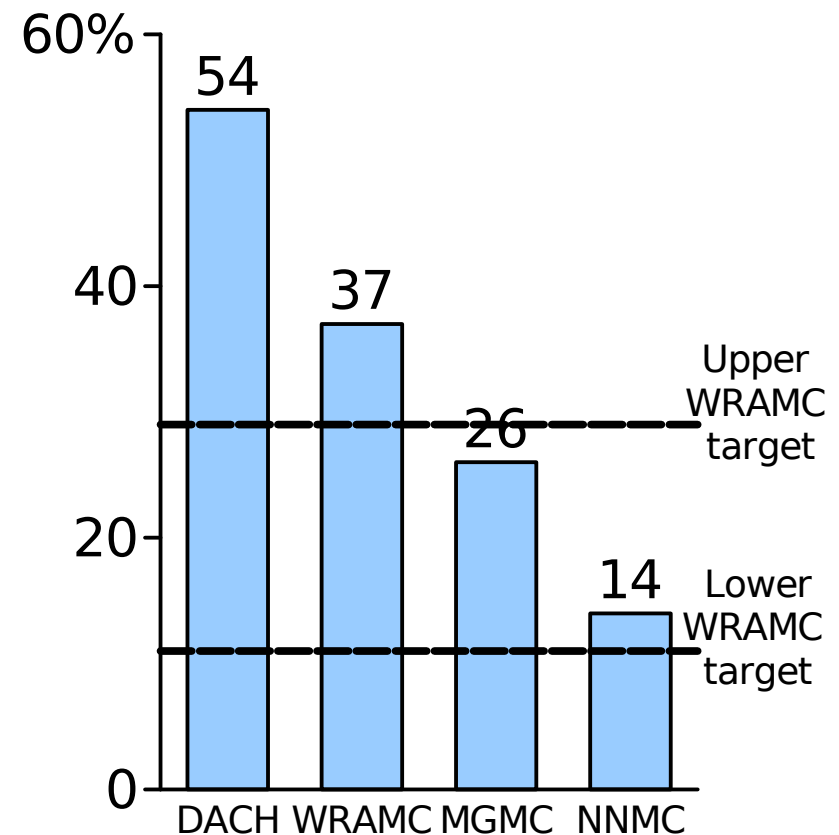
**Good appointment availability for general pediatrics, though worse at southern MTFs**

Source: MEPRS Workload Statistics; Appointment Log

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## Pediatric sub-specialties ~~DRAFT~~

Pediatrics specialty care open appointments available within 30 days (2003)



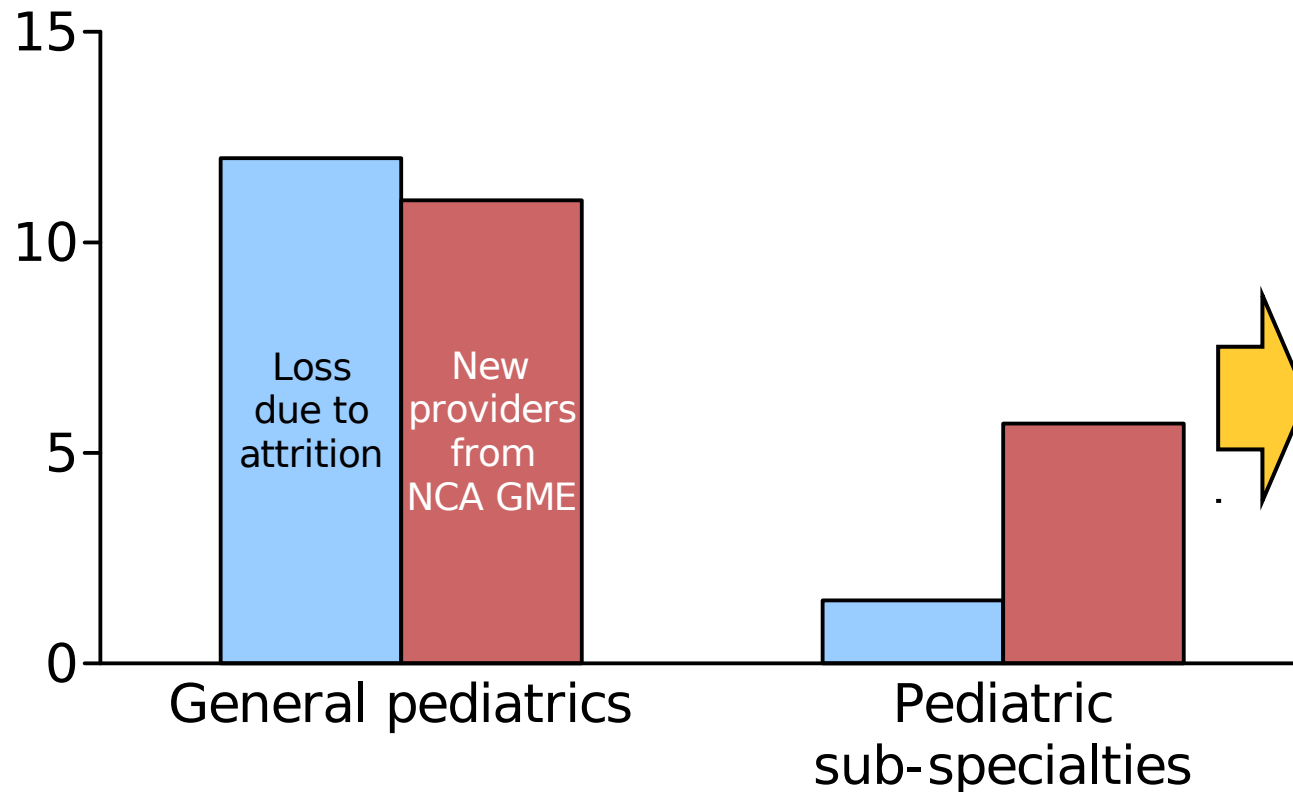
**Meets or exceeds open appointment standards for specialty**

DOD 9

# The productivity problems for specialty care could get worse based on retention and pipeline dynamics

Annual physician gain/loss

**DRAFT**



- Over the course of five years:
  - General pediatrics is projected to have a net loss of 7 physicians
  - Pediatric sub-specialties are projected to have a net gain of 21 physicians
- There is not enough room in the NCA for all pediatric sub-specialty fellowship graduates

Annual  
attrition  
rate

25% - 35%

~6%

Note: Academic and private practice benchmarks have been adjusted to account for time spent on GME and military obligations in the NCA. General pediatrics attrition is 25-35%, assumed 25% for NCA trained residents (experience indicates longer retention for internally trained physicians). Specialty physicians: Between 1993 and 1998, 27/51 (53%) stayed beyond their initial "payback" commitment. Assumed all stayed to retirement (~12 years of specialty service; based on feedback from pediatrics dept.) = 6% annual attrition.

Source: MGMA; Bain Manpower Survey; Pediatrics Interviews

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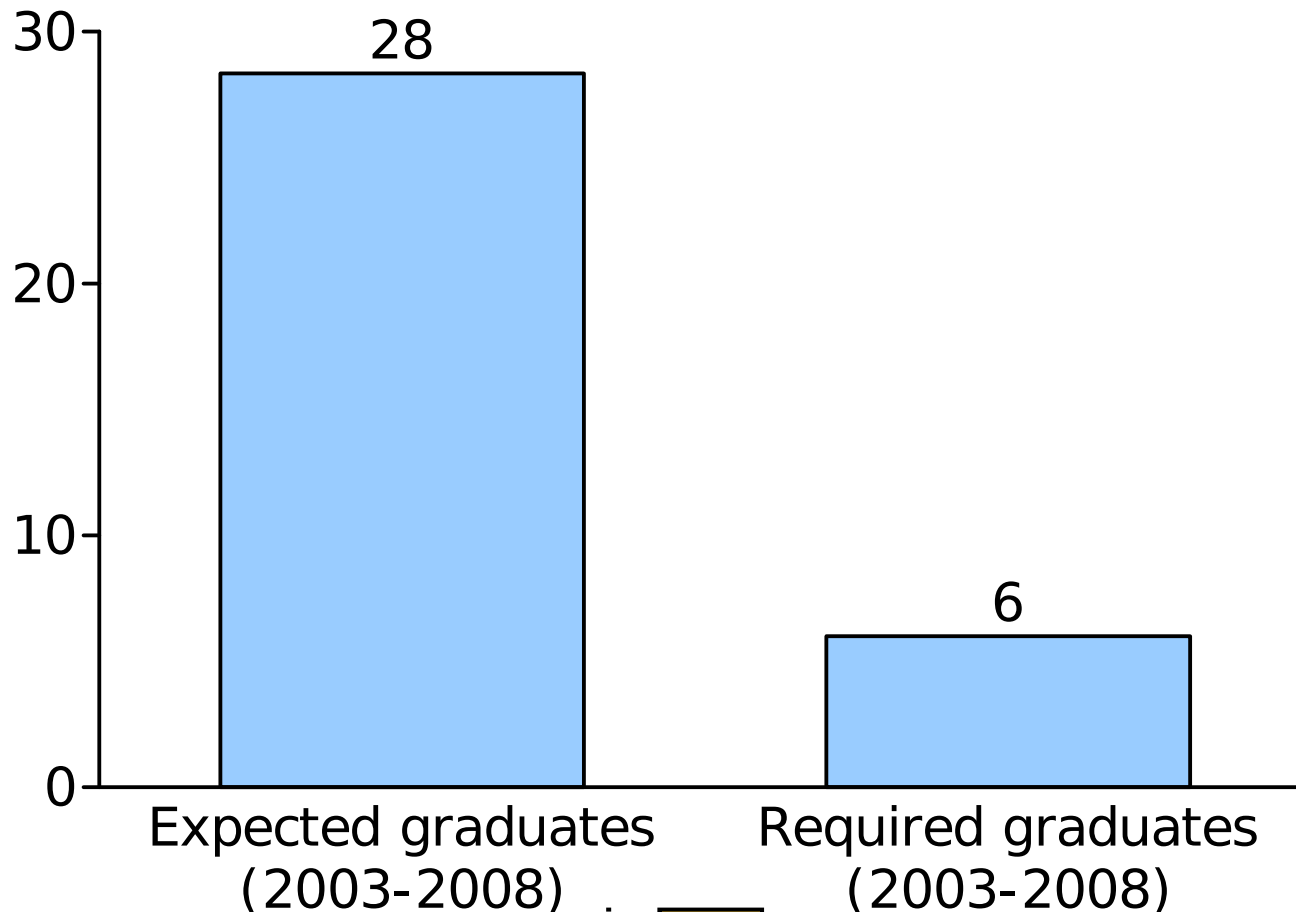
**DOD 9**



NCA may consider closing one or more of its pediatric fellowship programs or reducing their size; alternatively, it will have to export GME graduates to other regions

**DRAFT**

Number of fellows



**All of excess supply can be relocated to ONCA assuming demand exists**

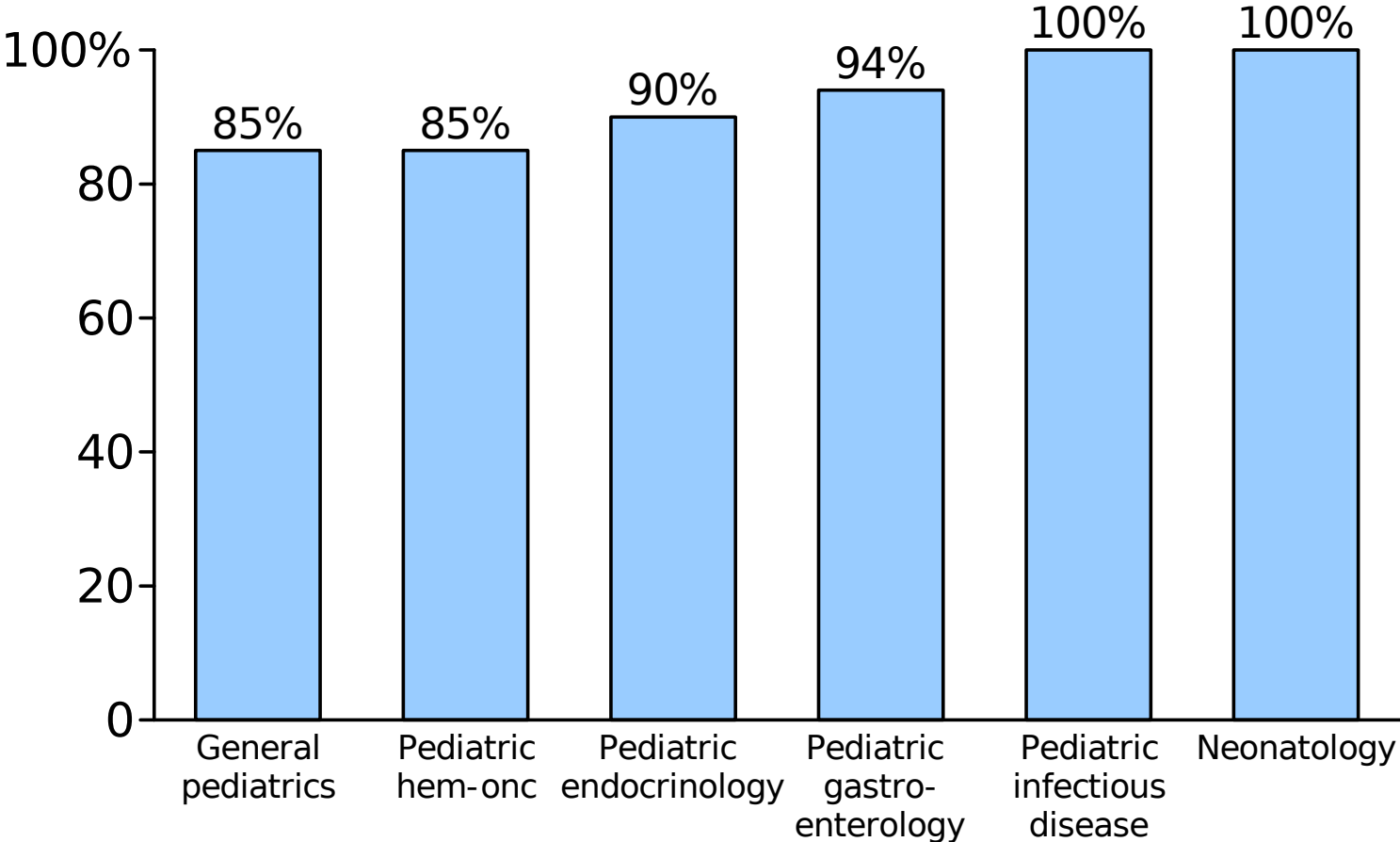


**Closing or reducing the size of GME programs may affect attrition, which needs to be taken into account**

# Pathology mix and clinical quality are good, as evidenced by RRC requirements and board passing rates

## Graduate Medical Education

Cumulative board pass rate



RRC requirements met



**Physician**  
**proficiency**

*The board re-certification rate at WRAMC is 100%*

# Recommendation 4: Take advantage of a number of administrative opportunities to generate ~\$50-55M in savings per year

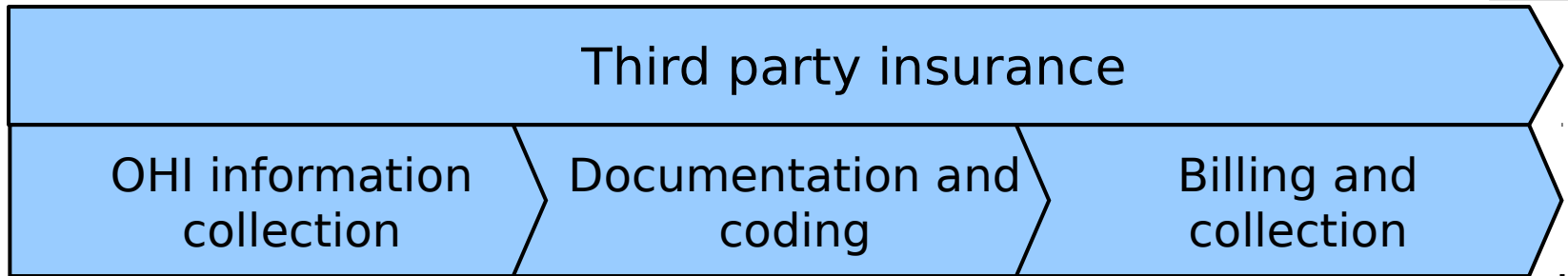
	Third party billing	Contracting	Pharmacy
Situation today:	<ul style="list-style-type: none"> <li>NCA collected \$18M from other health insurance in FY02 and is projected to collect \$16M in FY03</li> </ul>	<ul style="list-style-type: none"> <li>The bedded NCA MTFs are projected to spend \$69M on non-medical contracts in FY03</li> </ul>	<ul style="list-style-type: none"> <li>Prescriptions filled at retail cost the DoD more than scripts filled in MTFs, and retail volume is growing fastest in the NCA</li> </ul>
Opportunity:	<ul style="list-style-type: none"> <li>Increase collections, primarily by identifying more OHI* patients, along with improving coding, documentation, and billing practices</li> </ul>	<ul style="list-style-type: none"> <li>"Best price" and volume savings can be generated through tri-service contract consolidation</li> </ul>	<ul style="list-style-type: none"> <li>Cost savings can be achieved by recapturing retail scripts to the MTFs or by achieving MHS pricing for retail scripts</li> </ul>
Potential benefits:	<ul style="list-style-type: none"> <li>Incremental collections of ~\$34M for the four NCA bedded MTFs</li> </ul>	<ul style="list-style-type: none"> <li>Full potential benefits across all categories of \$7M to \$10M annually</li> <li>Short to medium-term opportunity of \$4M to \$5.5M** annually</li> </ul>	<ul style="list-style-type: none"> <li>Full potential savings of \$13M to \$17M annually for the NCA by achieving MHS pricing for retail scripts or recapturing scripts</li> </ul>

\*Other health insurance

\*\* \$5.5M excludes NNMC from facilities maintenance consolidation analysis.

# There are several ways to improve third party collections

**DRAFT**



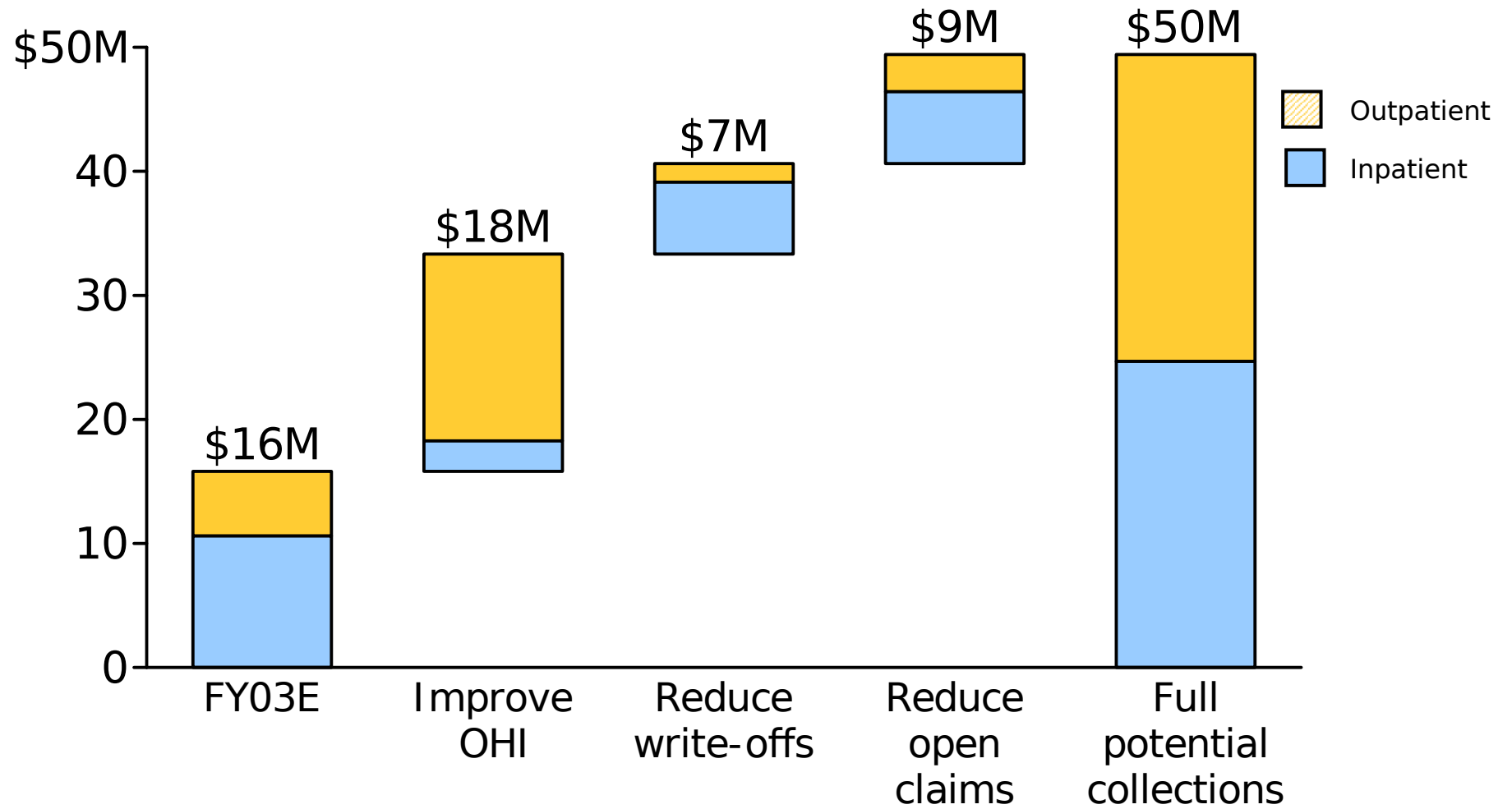
- |                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div style="background-color: yellow; border: 1px solid black; padding: 10px; margin-bottom: 10px;">Easier to implement</div> <div style="background-color: yellow; border: 1px solid black; padding: 10px;">More difficult to implement</div> | <ul style="list-style-type: none"> <li>• <b>Train clinic clerks</b> to collect OHI information during the check-in process               <ul style="list-style-type: none"> <li>- Provide <b>incentives</b> for clerks to gather and update OHI information</li> <li>- <b>Track performance</b> by clinic</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Continue to <b>track coding accuracy</b></li> <li>• Revise coding based on <b>denied claims from insurance</b> companies</li> <li>• <b>Improve paper documentation</b> to enable more coding</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Reduce time to process ancillary claims</b> (limit manual quality control)*</li> <li>• <b>Track denials</b> by insurance company</li> <li>• <b>Follow-up</b> with leading insurance companies about <b>multiple denied claims</b> at one time</li> </ul> |
|                                                                                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• <b>Educate</b> patients to provide OHI information by holding OHI <b>information days</b></li> <li>• Seek OHI information through <b>phone and mail drives</b></li> </ul>                                                                                                               | <ul style="list-style-type: none"> <li>• <b>Train</b> providers, coders, and billing department</li> <li>• Develop <b>electronic documentation</b> program</li> </ul>                                                                            | <ul style="list-style-type: none"> <li>• <b>Standardize follow-up</b> procedures and referrals to legal department</li> <li>• Consider <b>outsourcing</b> open <b>claims</b></li> <li>• <b>Address IT system</b> issues</li> <li>• Develop <b>electronic billing</b> system</li> </ul>               |

\*Addresses a major problem caused by outpatient itemized billing (OIB); ancillary includes lab, radiology, and pharmacy.  
 Source: MTF Interviews; Industry Interviews; HFMA; Aspen Group; DACH Third Party Billing Pilot (August 2003)

# Process redesign and application of best practices could increase third party collections by \$34M per year

**DRAFT**

Estimated full potential NMMC, WRAMC, MGMC and DACH third party collections\*



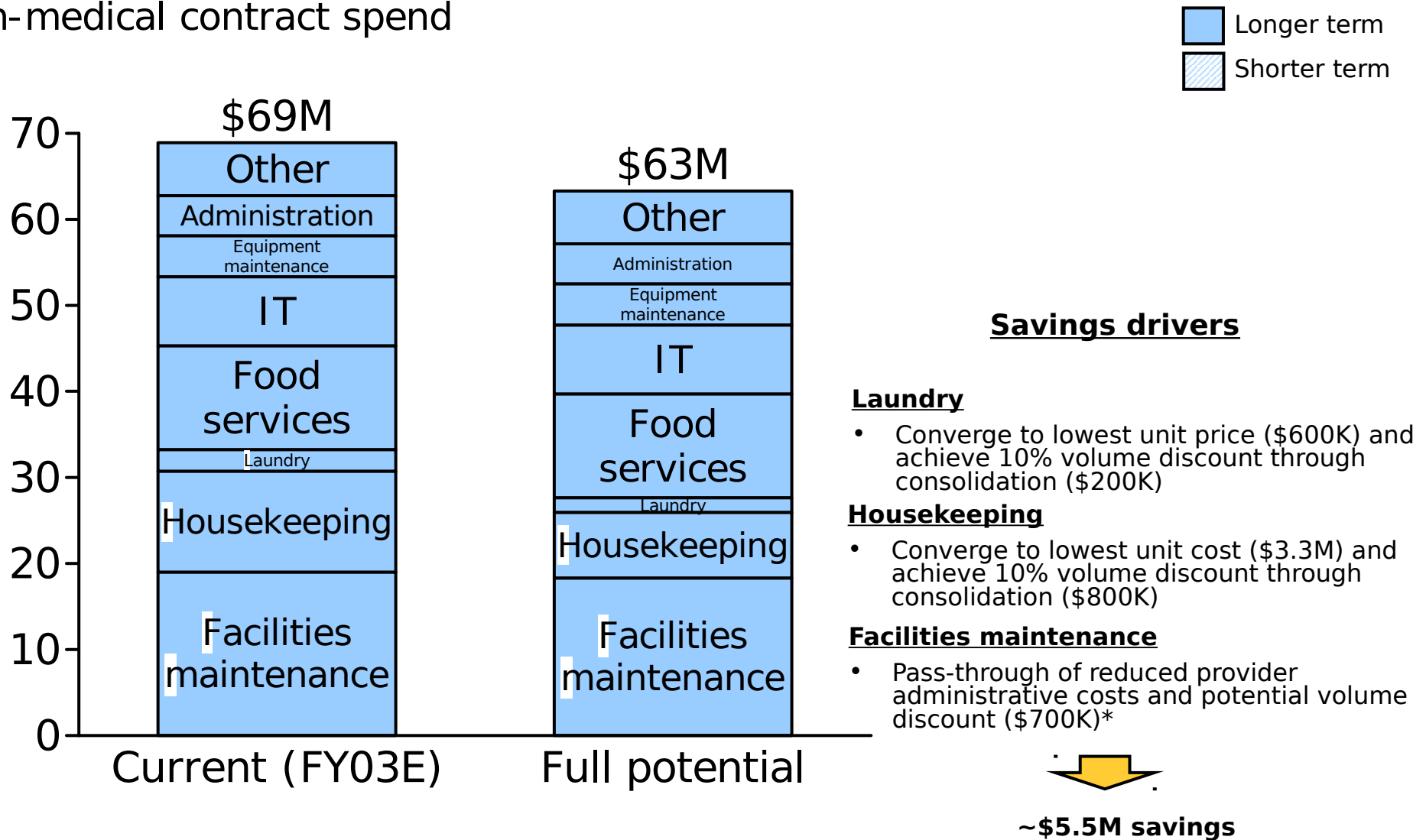
\*FY03 estimated based on FY03 partial YTD figures (may over-state baseline collections for FY03); Reduce write-offs includes improved coding and reduces potentially controllable write-offs by 50%; Reduce open claims reduces potentially controllable open claims by 50%; excludes mostly one-time effect of reducing outpatient itemized billing backlog.

Source: Form 2570 Reports; DACH Reports; DACH Denial Study; Bain Analysis

# Joint contracting of non-medical services could generate savings of \$4-5.5M off current spend

**DRAFT**

## Non-medical contract spend



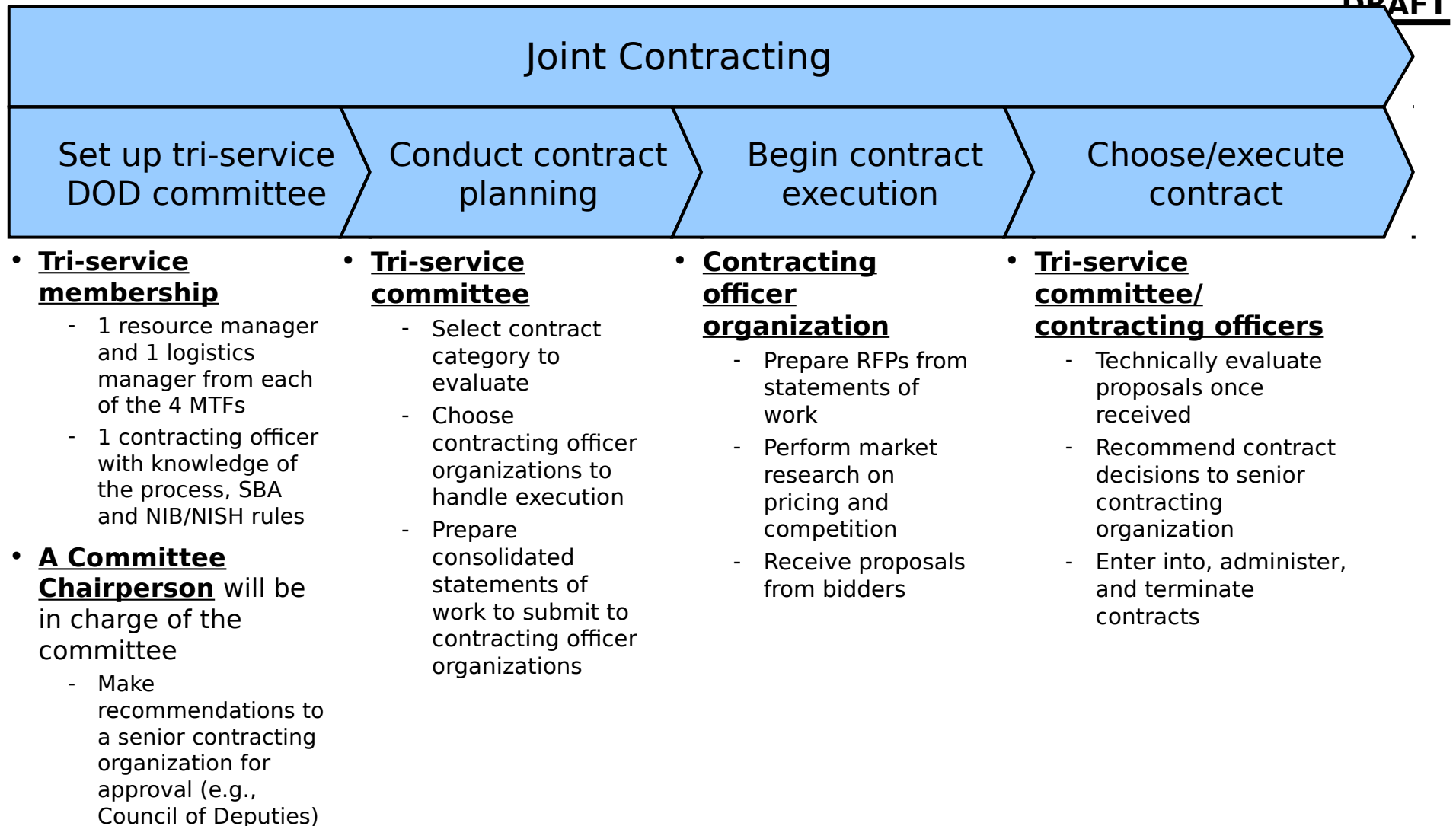
\*Excludes NNM from current facilities maintenance analysis.

Source: MTF Budgetary Reports; MTF Contract Data; MTF Resource Manager Interviews; MTF Logistics Personnel Interviews

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**DOD 1**

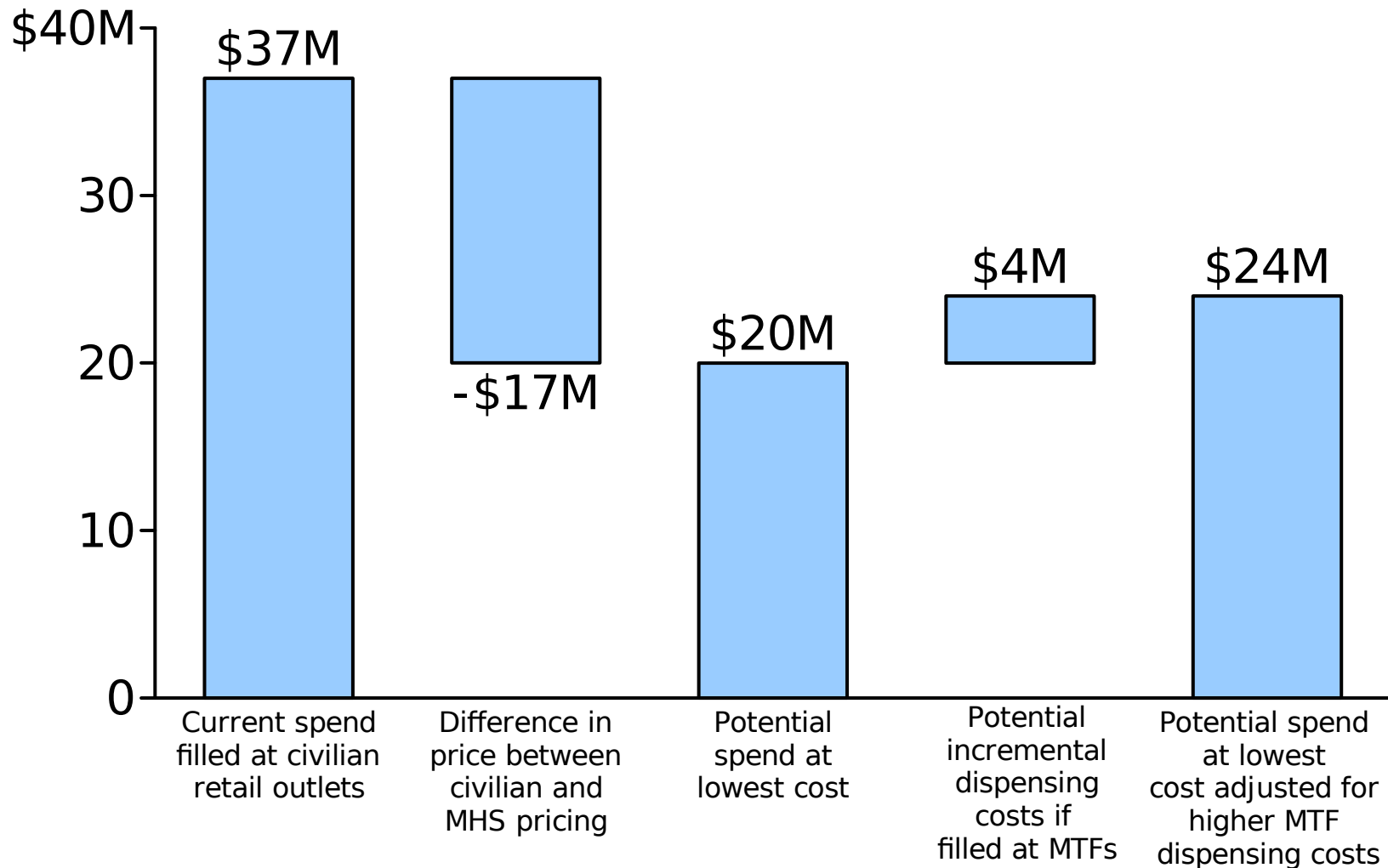
# Joint contracting on non-medical services should be pursued to achieve these savings



# Recapturing pharmacy scripts currently filled in civilian retail outlets could save between \$13M to \$17M per year

**DRAFT**

## NCA pharmacy spend (FY03E)



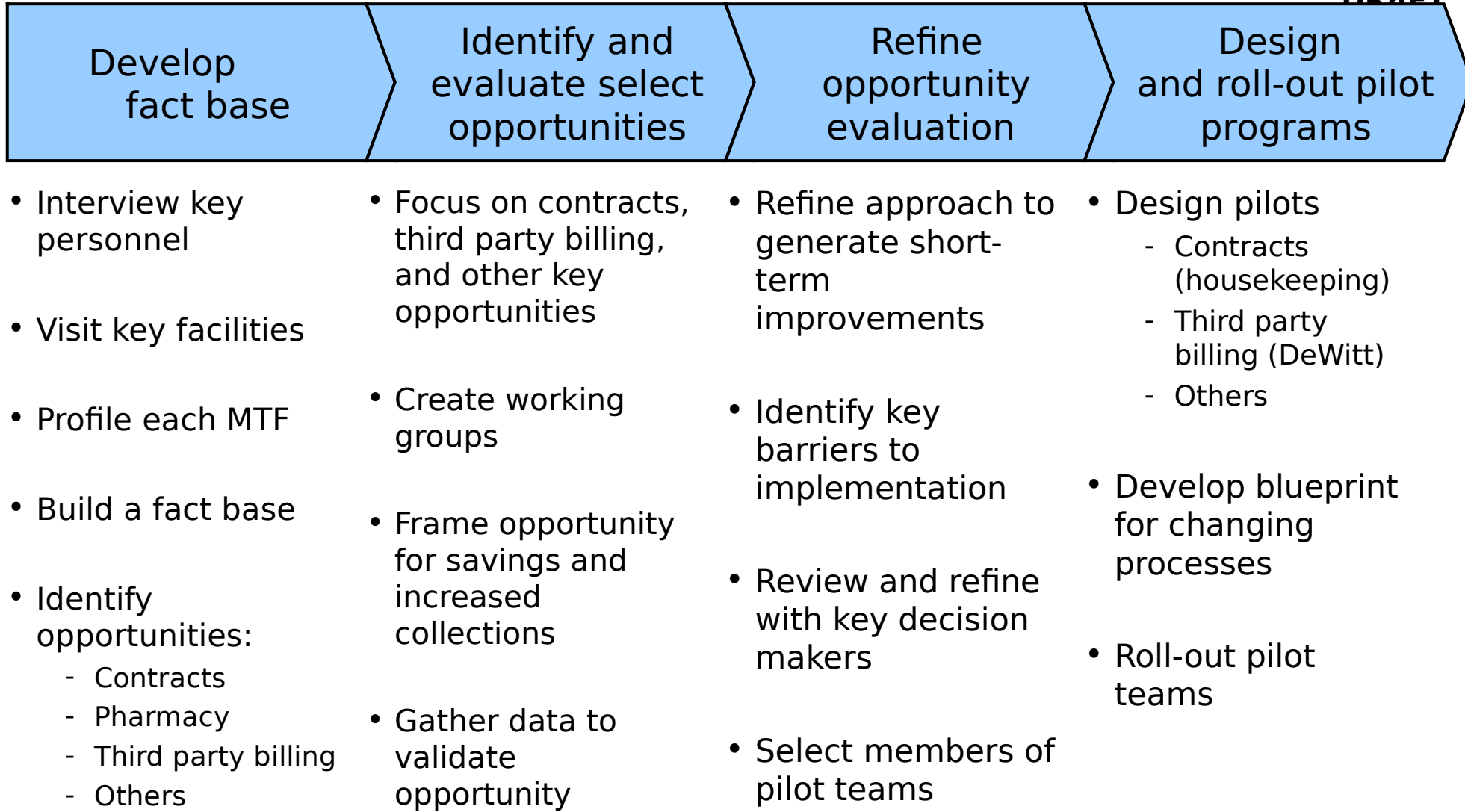
Note: FY03 costs estimated by annualizing FY03Q2 data. Dispensing fee/script = \$2.25 for retail; \$7 for MHS.

Source: PDTs



# The short-term initiatives approach can be replicated in other MHS regions

**DRAFT**



# Recommendation 5: Empower the multi-service market manager to allocate resources and make

**DRAFT**

## **Authority and responsibility to:**

- Fluidly move providers around NCA across MTFs
- Shrink/expand clinical services in coordination with MTFs in the NCA
- Coordinate facilities management to take advantage of joint contracting opportunities
- Make shared investments in enabling technologies, with common data bases and information systems
- Invest in shared MTF in the south and adjust service specific capital plans accordingly

# There is a range of governance models that can support an empowered multi-service market manager

**DRAFT**



## **Minimum requirement**

## **Fully empowered model**

### Resource allocation

- Pool of “no-color” money for shared investments
  - 1 – 3% of total area budgets
  - Comes out of annual increases

- Single, pooled budget

### Capital investment

- New investment process requires approval from MSMM for amounts over certain level

- Pooled budget

### Decision authority/ leadership

- Approval/selection of MTF commanders in region
- Key role in rating process
- Selects clinical service line coordinators for whole market

- Single command structure
  - MSMM Flag Officer
  - MTF commanders non-flag officers
  - One tri-service chief for each clinical service line

### Resources

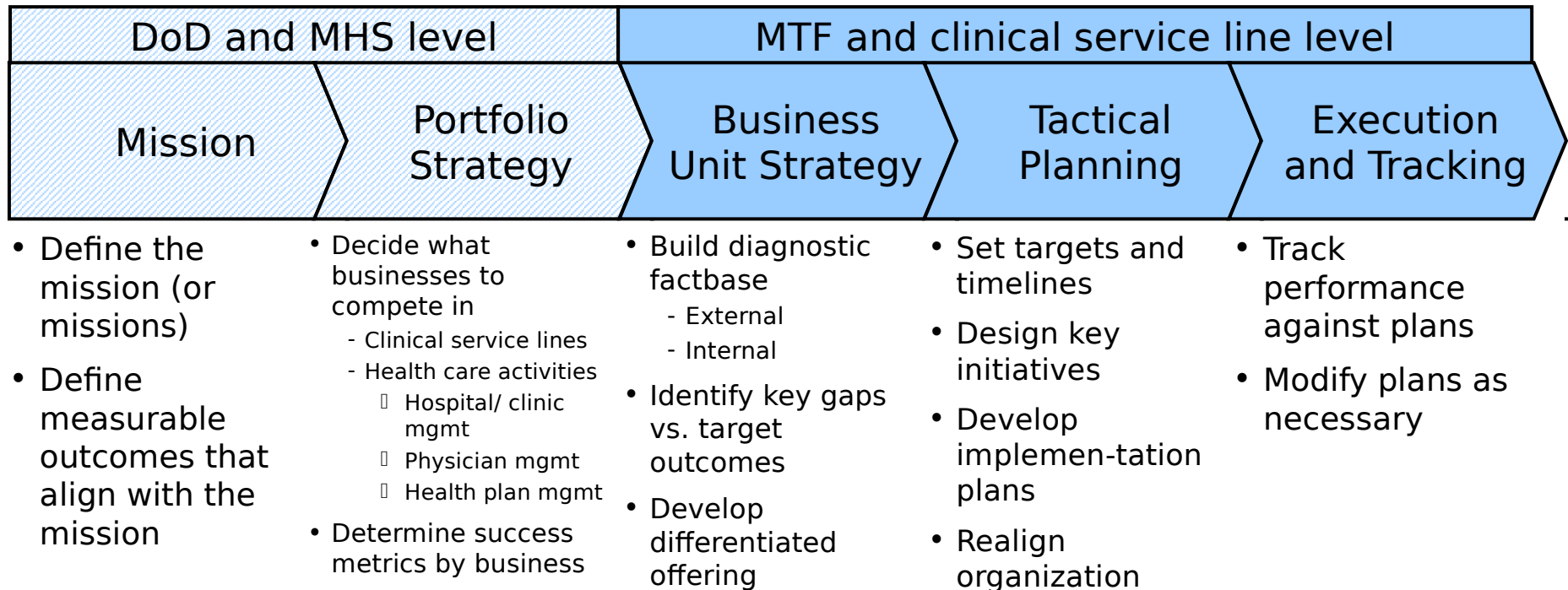
- Small, analytical and project management staff
- Cross-market compatible informatics systems

- Small, analytical and project management staff
- Cross-market compatible informatics systems

**DOD 1**

# The market manager should lead a strategic planning process, incorporating input from above and below

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• **Rarely**

• **Every 5 years**

• **Every 2-3 years**

• **Annually**

• **On-going**

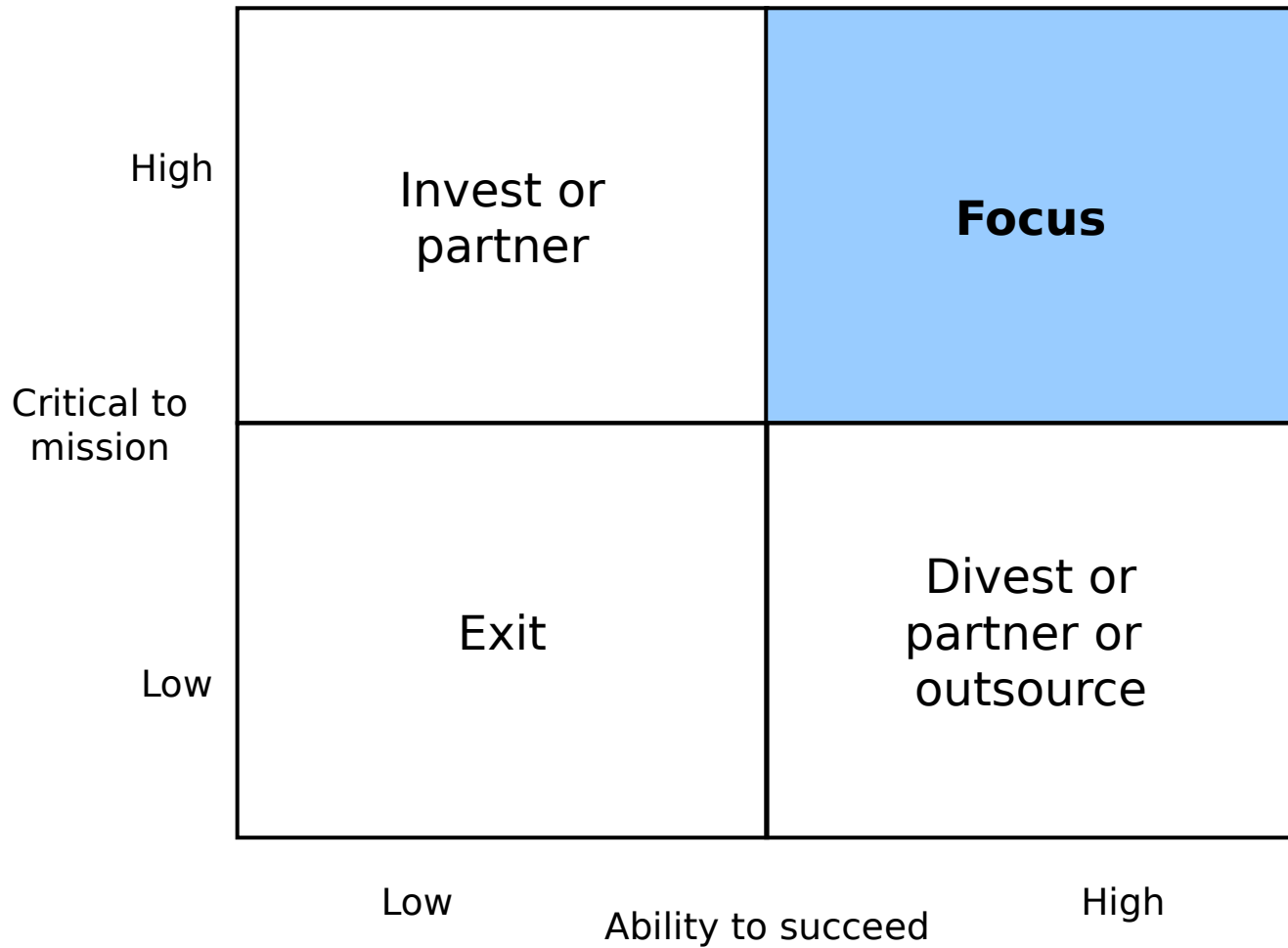
**DOD 1**

# This plan should review which clinical areas/activities will be delivered in-house vs. outsourced

**DRAFT**

## Service lines

- Allergy
- Infectious disease
- Cardiology
- **Physical therapy**
- GI
- Nephrology
- Pain management
- **Vascular surgery**
- **Urology**
- Endocrinology
- Neurosurgery
- **Rheumatology**
- Family practice
- Mental health
- Neurology
- Hem-onc
- Dermatology
- **General internal medicine**
- Orthopedics
- Ophthalmology
- ENT
- **Plastic surgery**
- Emergency medicine
- CT surgery
- OB/Gyn
- General surgery
- **Pulmonary**
- Pediatric surgery
- Pediatrics (all specialties)

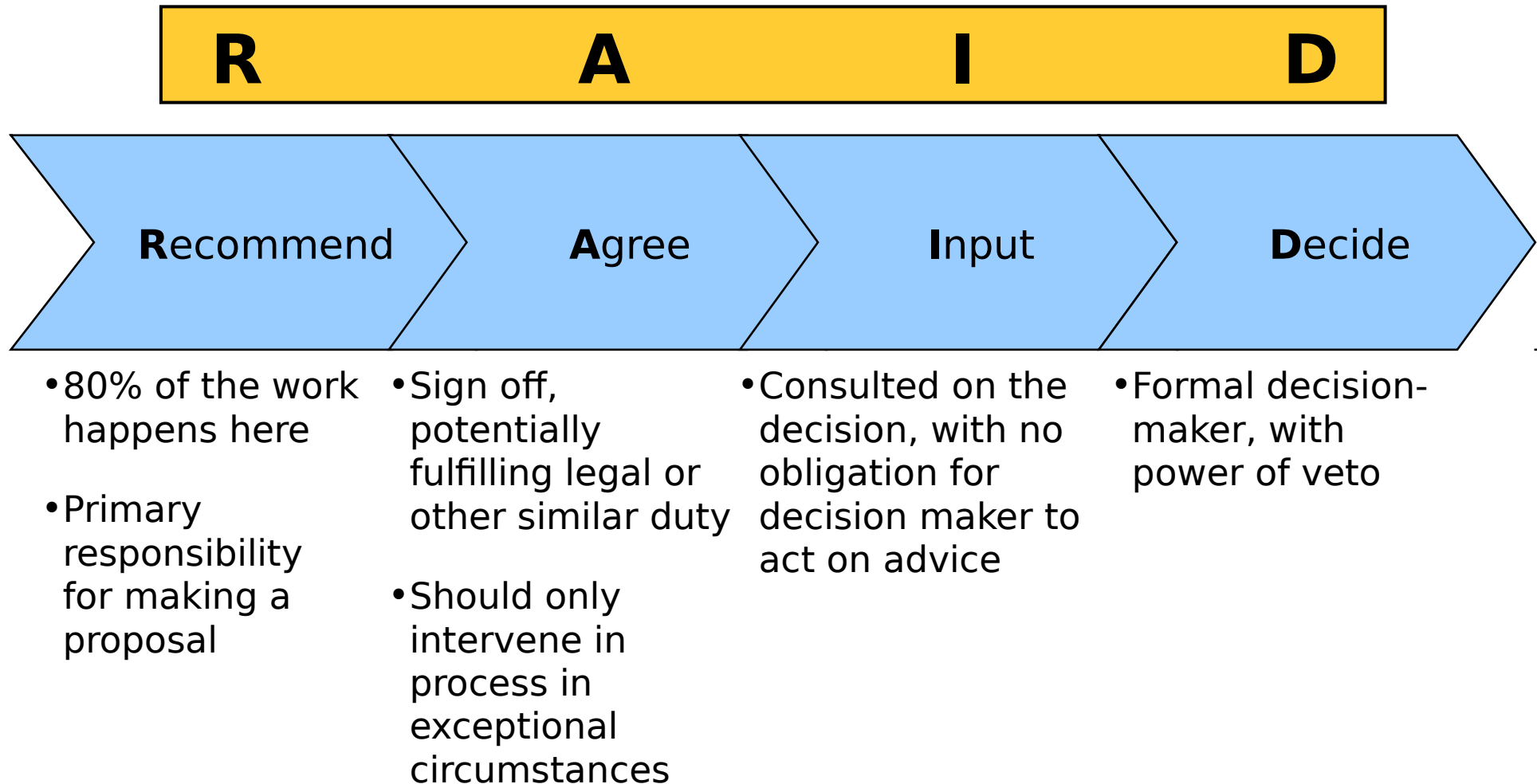


**DOD 1**

# A RAID analysis for key market-level decisions in the NCA will bring further clarity, especially in absence of a single command structure

**DRAFT**

***The RAID framework allocates one of four roles to all “constituencies” in any decision***



# We suggest doing a RAID analysis for key market-level decisions in the NCA

**DRAFT**



Key processes and decisions		Market Manager	NCA MTF Commanders	Service Surgeons General	Military Line Commanders	DoD (HA)	Congress & Political Stakeholders
	Provider Allocation by Service Line by MTF	D	R	A	I	I	I
	Facility Investments Decisions (minor)						
	Facility Investments Decisions (major MILCON)						
	Other Resource Allocation by Service line by MTF						
	Contracting (Healthcare & Clinical Support)						
	Contracting (Non-clinical & Base Operations)						
	Major GME Decisions						

**ILLUSTRATION**

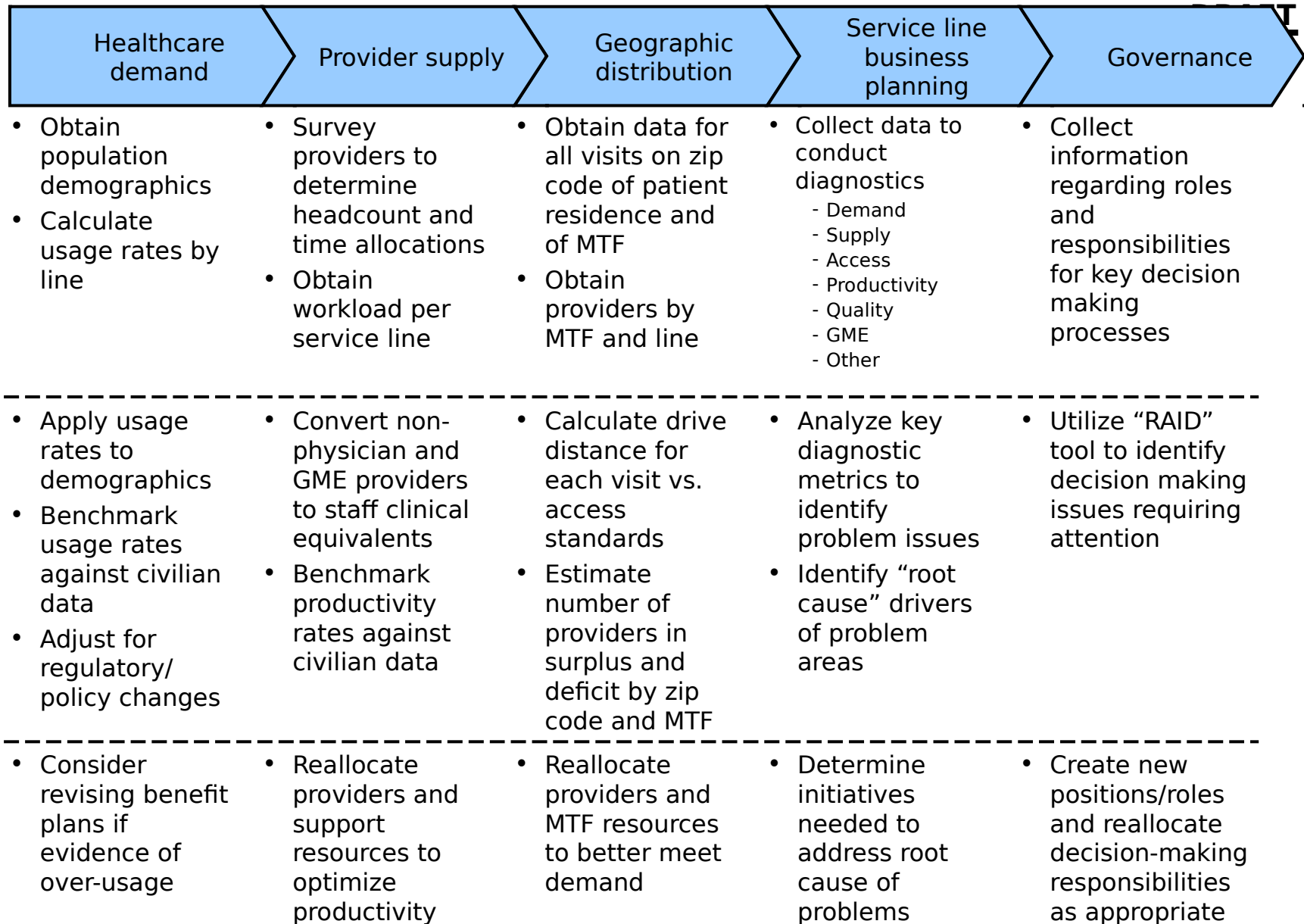
Proposed Future Model: Emphasizes Central Coordinating Authority of Market Manager.

(Note: Not supported by existing resource allocation channels or service-specific command structures).

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**DOD 1**

# The long-term system optimization approach used for the NCA can be replicated in other regions





# Agenda

**DRAFT**

- NCA MHS findings
- Optimization vision for the NCA MHS
- Other considerations
- Short-term initiatives detail
- Detailed methodology

# Other considerations summary

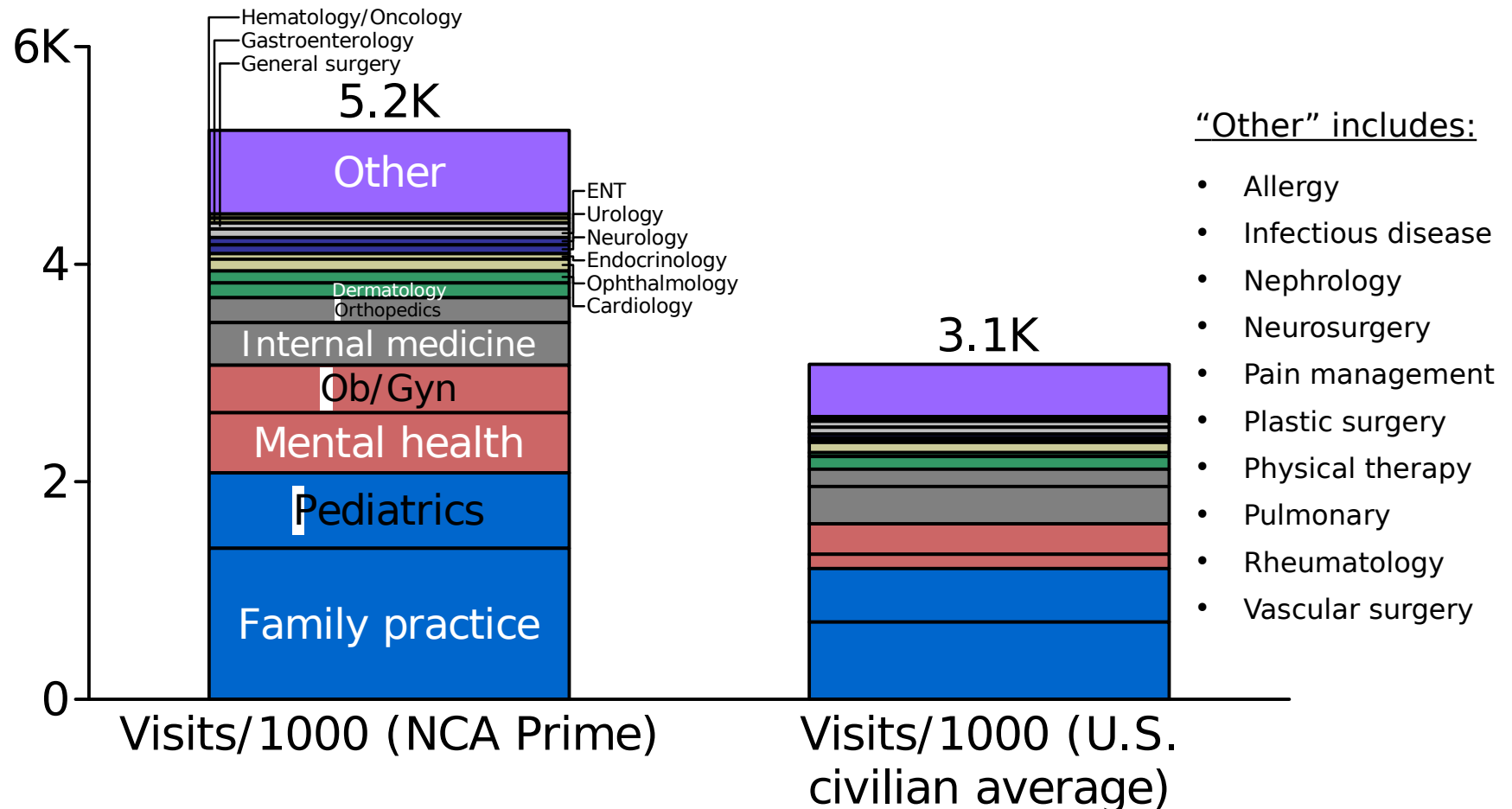
**DRAFT**

- Consider changing the Prime benefit (by using economic incentives) to decrease utilization of care
- Outsource hospital/clinic management and/or administrative functions where possible, given inefficiencies in managing non-provider personnel
- Consider opportunities to optimize GME programs
- Improve data quality and availability to facilitate decision making
- Clarify missions and priorities for institutions like NNMC and WRAMC, including those for the local market, peacetime care and national missions (training, deployments, etc.)

# NCA Prime enrollees tend to use over 65% more outpatient care than the civilian national average

**DRAFT**

Visits per 1000 people per year



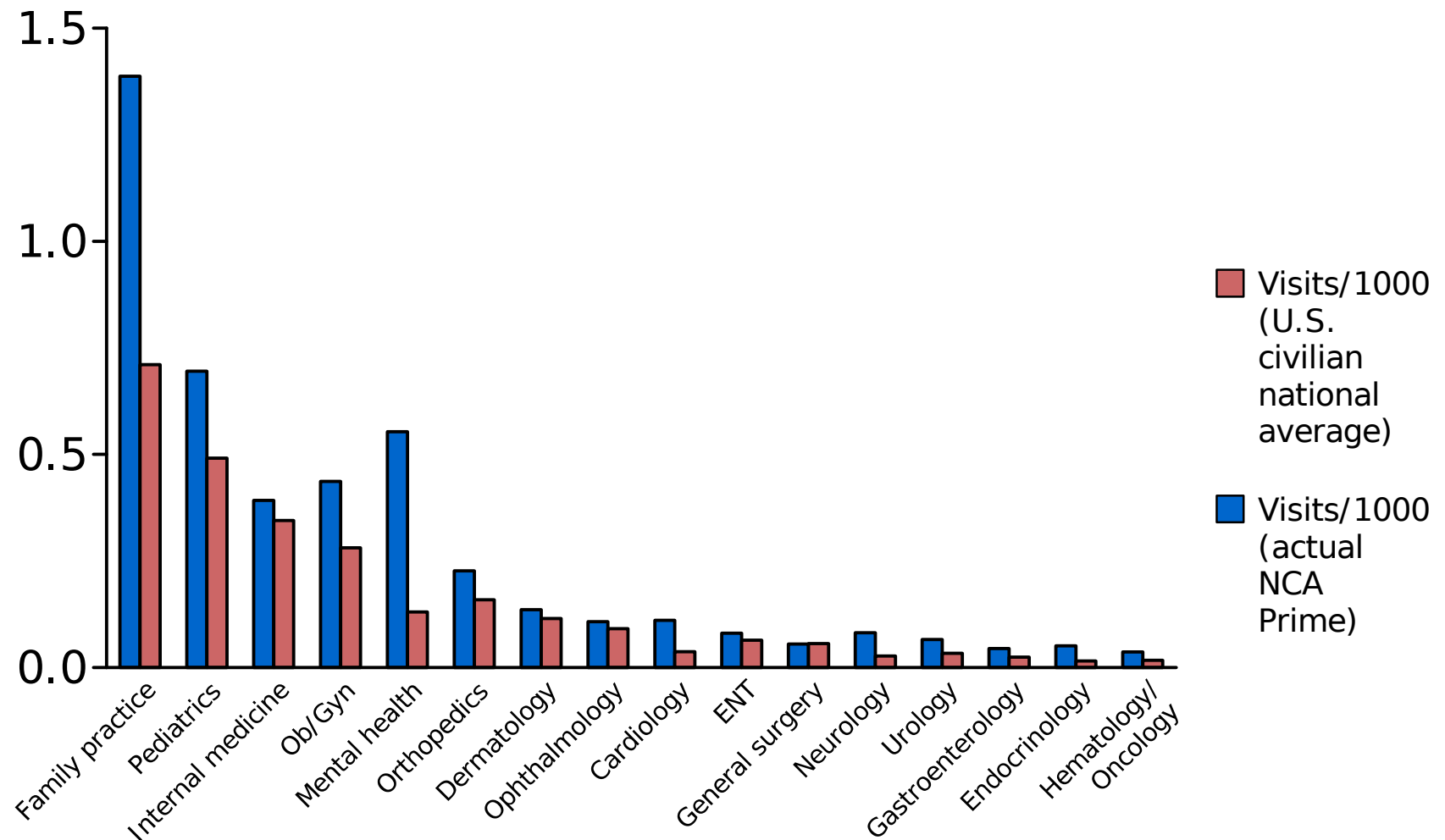
Note: Analysis represents 26 clinical service lines. Lines for which civilian benchmarks were not available or were ambiguous were excluded. Excluded lines are CT Surgery, Primary Care, Other Primary Care, Other Specialty Care, Physical Therapy, and Emergency Medicine. Prime estimates based on a sample of 199,819 enrollees. HMO rate was adjusted downward by 33% to account for the amount of total volume estimated to be included in the HMO benchmark, but not in the Prime or Civilian benchmark.

Source: National Ambulatory Medical Care Survey (2000); National Hospital Ambulatory Medical Care Survey (2000); SADR (2002); HCSR Non-Institutional File (2002); NCQA Quality Compass (2002)

# This increased outpatient usage varies by service line, but is 70% higher overall when assessing 16 lines compared with a

**DRAFT**

Visits per 1000 people per year (for sampled service lines)



Note: Analysis represents 16 clinical service lines, representing 63% of 2002 NCA volume, and 79% of volume that is considered "in scope" to Bain analysis. Prime estimates based on a sample of 199,819 enrollees. U.S. civilian average age-adjusted to reflect Prime age distribution.

Source: National Ambulatory Medical Care Survey (2000); National Hospital Ambulatory Medical Care Survey (2000); SADR (2002); HCSR Non-Institutional File (2002)

# Military usage rates are generally higher than civilian benchmarks

**DRAFT**

Outpatient visits per 1,000 persons per year

	NCA Prime	Civilian benchmark (age-adjusted)	
General surgery	55	56	Military usage is less than 50% higher than civilian rate
Internal medicine	392	345	
Dermatology	136	115	
Ophthalmology	108	91	
ENT	81	64	
Pediatrics	695	491	
Orthopedics	227	159	
Ob/Gyn	437	281	Military usage is between 50-150% higher than civilian rate
Gastroenterology	44	24	
Family practice	1387	711	
Urology	66	33	
Hematology/Oncology	37	17	
Cardiology	111	37	Military usage is more than 150% higher than civilian rate
Neurology	82	27	
Endocrinology	51	16	
Mental health	553	130	

Note: Includes only service lines for which a statistically significant civilian benchmark existed. Green category includes one service line (General Surgery) for which Prime usage is lower than civilian rate. Usage rates calculated for Prime population age distribution, and represent visits per 1,000 beneficiaries annually.

Source: National Ambulatory Medical Care Survey (2000); National Hospital Ambulatory Medical Care Survey (2000); SADR (2002); HCSR Non-Institutional File (2002)

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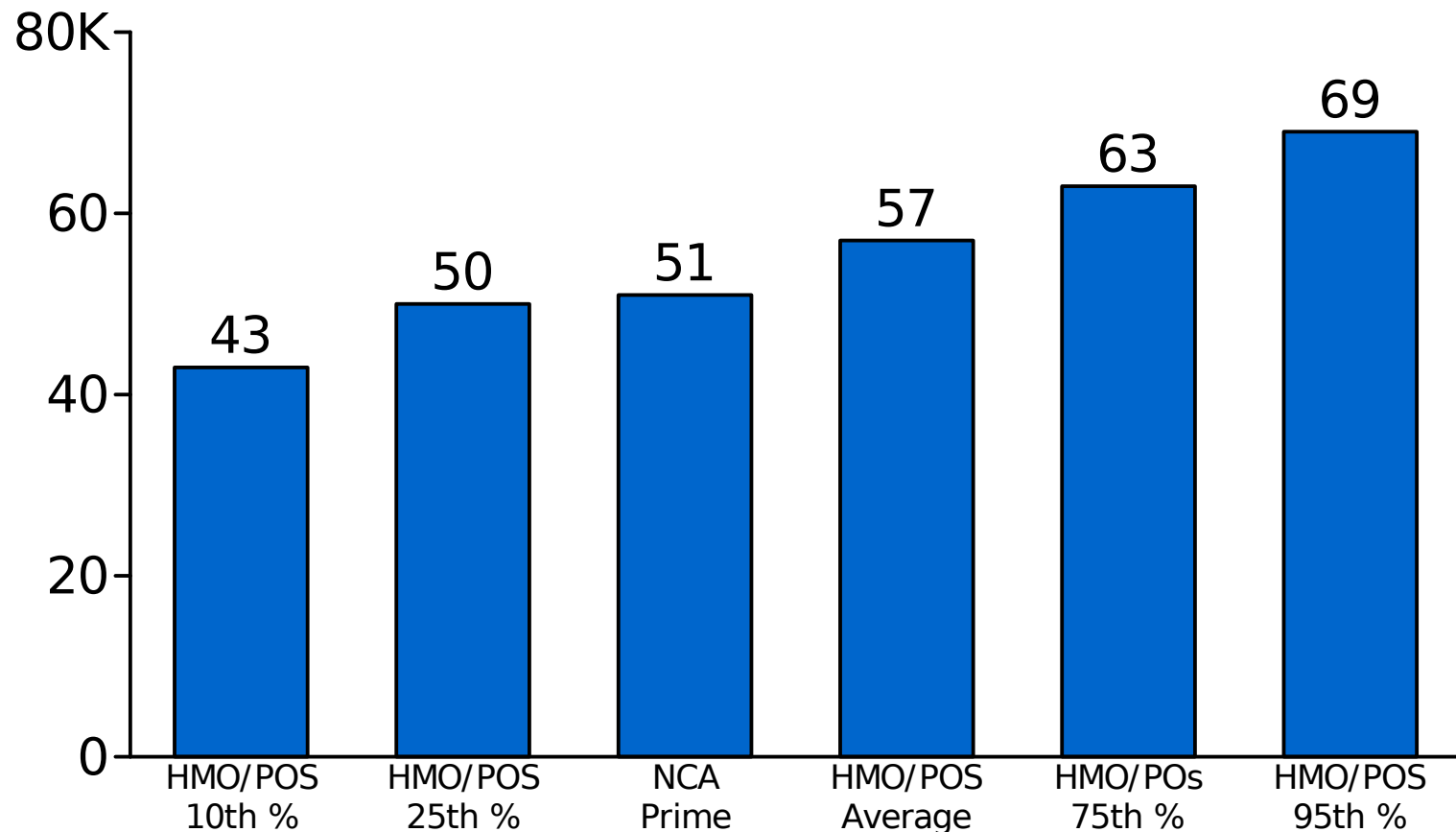
**DOD 1**

# The NCA Prime population uses inpatient care at a slightly lower rate than the average HMO population

Dispositions per 1000 people per year

**DRAFT**

**BACKUP**



Note: All benchmarks have been adjusted for age. Military data is expressed as dispositions for direct care and admissions for purchased care. HMO data is expressed as discharges per 1000 persons per year. HMO/POS data is from a sample of 286 programs. HMO/POS buckets for age adjustment did not match up exactly, so closest estimates were used. NCA Prime usage has been adjusted upward by approximately 16% to account for estimate of care delivered outside of the NCA.

Source: National Hospital Discharge Survey(2003, with 2001 data); SIDR (2002); HCSR Non-Institutional File (2002);NCA Working Group;NCQA Quality Compass (2002)

**DOD 1**

# Other considerations summary

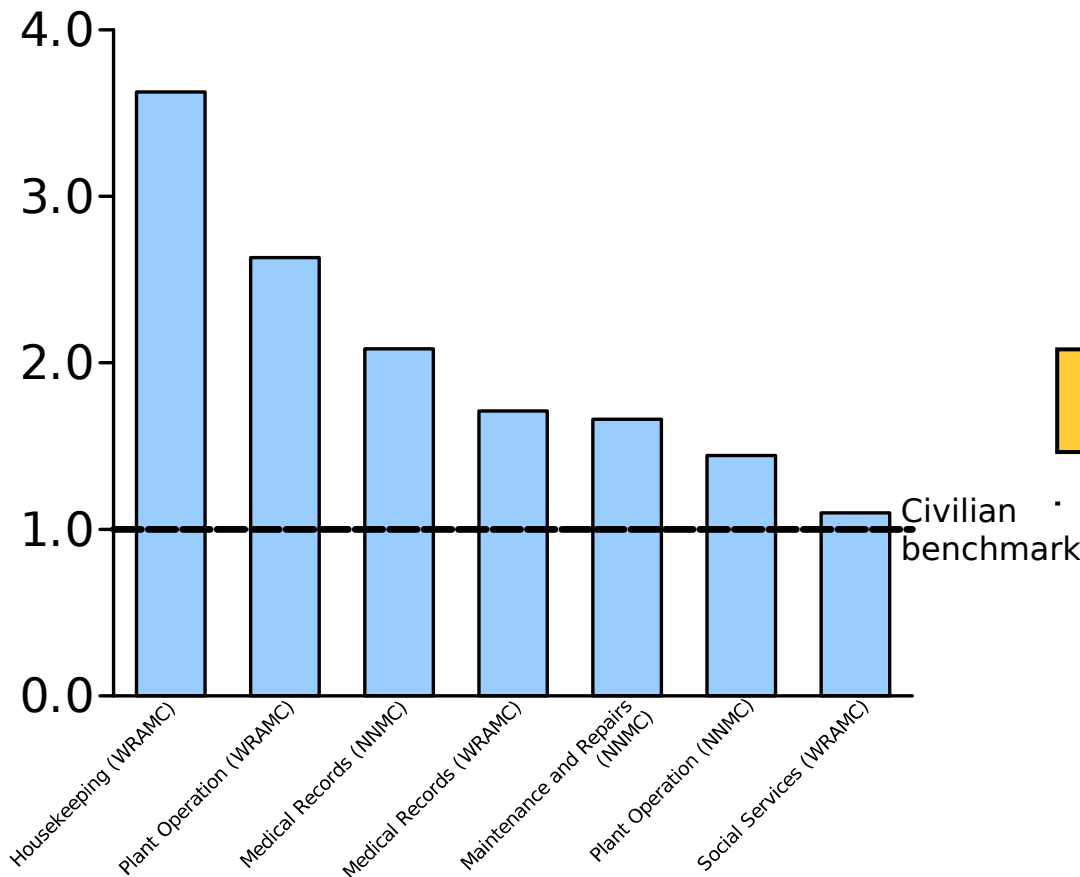
**DRAFT**

- Consider changing the Prime benefit (by using economic incentives) to decrease utilization of care
- Outsource hospital/clinic management and/or administrative functions where possible, given inefficiencies in managing non-provider personnel
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# MTF non-clinical staffing levels appear to be higher than those in the civilian sector...

**DRAFT**

NNMC and WRAMC non-clinical department staffing levels indexed to benchmark



- Data has not been adjusted for military or readiness responsibilities that might require additional staff

Note: Analysis is for a sample of functional areas at NNMC and WRAMC and does not reflect full non-clinical staffing. Total FTEs for NNMC obtained by discounting headcount by 10% to account for estimate of people who are part-time. Benchmark data is based on Federal filings with the Center for Medicare and Medicaid Services.

Source: NNMC Director of HR; WRAMC Manpower Manager; Market Insight; Financial Compass CD-ROM (Winter 2002)

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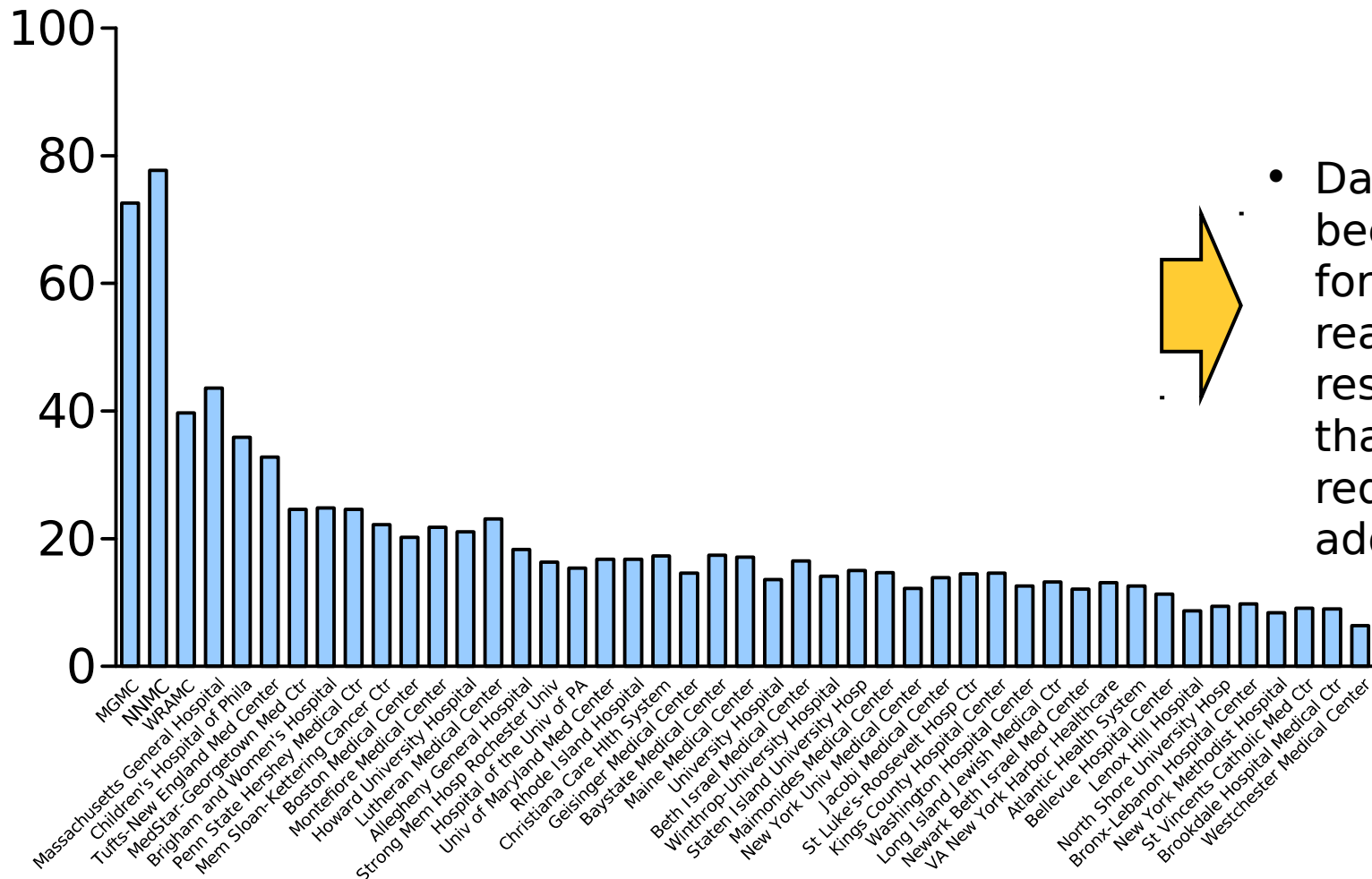
**DOD 1**



# ...a finding that agrees with an analysis using self-reported AHA data comparing NCA MTFs with regional academic

**DRAFT**

Other personnel FTEs per 1000 occupied bed days




- Data has not been adjusted for military or readiness responsibilities that might require additional staff

Note: Benchmark hospitals include academic hospitals in NY, PA, MD, MA, ME, RI, DE, NJ, & DC that have at least 185 FTE residents/interns. Other personnel will need to be slightly adjusted to reflect FTEs unique to an MTF (e.g., Military Manpower Center). Non-provider personnel includes RNs, management, administration and non-nursing support.  
Source: AHA Annual Survey Database FY 2001

# There are a number of indicators that clinical support staffing levels may also be suboptimal –

**DRAFT**

- A number of outpatient clinics, particularly at WRAMC, report **outpatient clinical support staff levels** below recommended norms\*
  - MTF data reported to the AHA shows **RN FTE/ Occupied Bed Day** levels higher than the great majority of regional academic hospitals
  - Preliminary analysis shows WRAMC and NNMCMC **inpatient nursing care hours per patient day** to be significantly higher than a civilian median
    - Data not adjusted for acuity differences or type of institution
- 
- Opportunity potentially exists to:
    - Optimize inpatient/ outpatient clinical support staff mix
    - Lower overall support personnel levels
  - Issue merits further study for individual MTFs, wards and clinical service lines

\*Note: Norms are those recommended by USA OTSG ASAM study

Source: Bain Manpower Survey; AHA Annual Survey Database FY 2001; Advisory Board

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**DOD 1**

# There are a number of barriers that complicate facility management for the military

**DRAFT**

- Civil service system is inflexible and impedes aggressive personnel management
  - Long hiring and firing process
  - Difficult to respond rapidly to short-term staffing needs
  - In order to increase flexibility, the MHS needs to engage in significant use of costly contract personnel
- Decisions like outsourcing are governed by highly regulated processes
  - A-76 study can take up to 24 months
  - NISH/small business/other restrictions
- Facility expansion planning often rests upon current versus projected workload and demand
- Political considerations sometimes conflict with optimal facility management decisions

BOD 1

# Other considerations summary

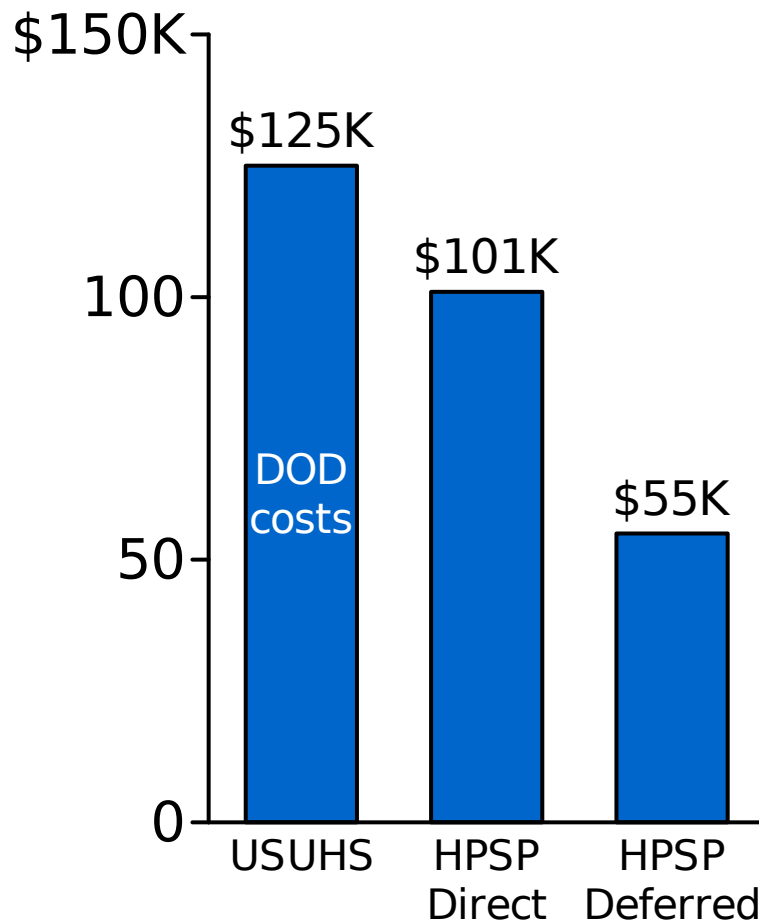
**DRAFT**

- Consider changing the Prime benefit (by using economic incentives) to decrease utilization of care
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# There may be less expensive ways to train physicians than USUHS

## 2003 CNA study

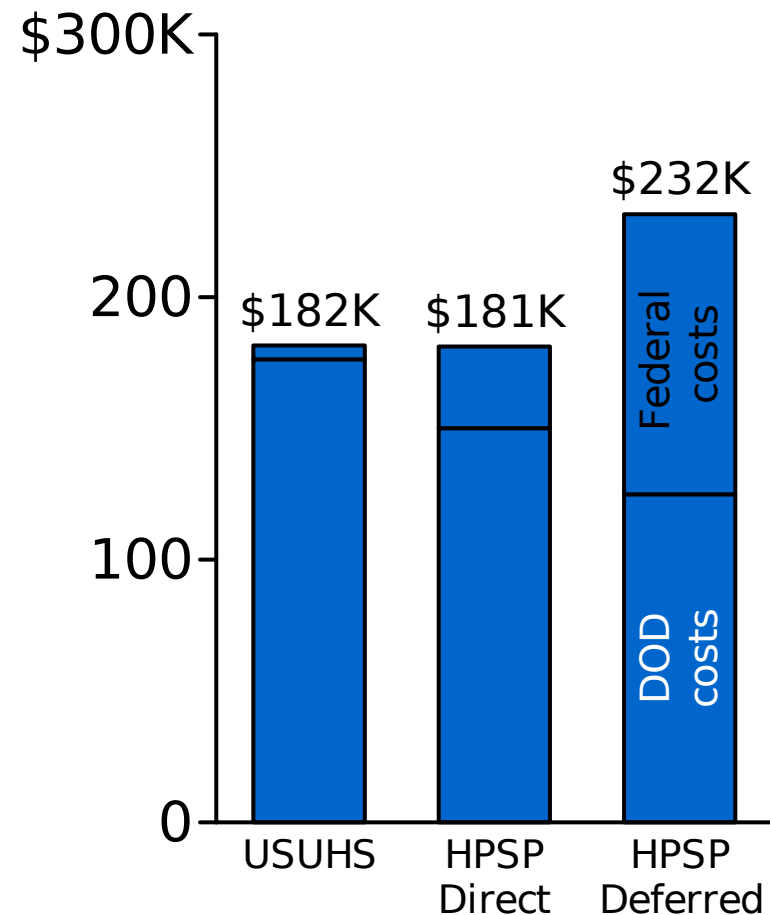
Acquisition cost  
per year of practice



## 1995 GAO study

DRAFT

Acquisition and retention cost  
per year of military service



Source: CNA, "Life-Cycle Costs of Selected Uniformed Health Professions, Phase I," April 2003;  
GAO, "Military Physicians: DOD's Medical School and Scholarship Program," September 1995

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# GME qualitative perspectives and key questions

**DRAFT**

## CNA (2003) Perspectives

- Even though USUHS accessions are the most costly, their better retention makes USUHS the most cost effective solution for filling O-6 grade requirements
- If stated experience requirements could be lowered, HPSP deferred accessions would be more cost effective
- The higher the experience constraints, the higher the cost and the greater the number of excess physicians that the services will have

## Key Qualitative Questions

- Could the MHS recruit enough physicians through HPSP Deferred to meet readiness requirements?
- What would happen to the quality of care if the MHS begins to recruit more aggressively through HPSP Deferred?
- How would this shift affect the retention of senior physicians?
- How should we account for Federal government subsidies of GME programs?
- Can GME commitments be lengthened to reduce the number of trainees required?

# Other considerations summary

**DRAFT**

- Consider changing the Prime benefit (by using economic incentives) to decrease utilization of care
- Outsource hospital/clinic management and/or administrative functions where possible, given inefficiencies in managing non-provider personnel
- Consider opportunities to optimize GME programs
- Improve data quality and availability to facilitate decision making
- Clarify missions and priorities for institutions like NNMC and WRAMC, including those for the local market, peacetime care and national missions (training, deployments, etc.)

# A market manager needs better information than is currently available to effectively make decisions (1/2)

## Overall informatics issues

RAFT

- Informatics systems are not standardized across MTFs or military services
  - A recent Army inventory of informatics systems across the NCA MHS detailed ~253 systems - only 36% of these were standard across the three services
- Most informatics systems cannot communicate across military services
  - Many systems are antiquated, and hence difficult to link
  - Data fields and metrics vary across military services
- Clinical systems are often cumbersome and time consuming for users; hence providers struggle and often use systems incorrectly
  - No integrated, desktop interface to facilitate provider use; systems have separate front-ends and require different portals for data entry

## Specific system limitations

- Data on clinical staffing levels, hours worked, and time allocations is often unreliable
  - Rigid use requirements and data entry processes for UCAPERS result in errors in inventories of providers and hours worked
- Data on costs associated with clinical service line level work is also often unreliable
  - There are inaccuracies in how MEPRS allocates work and associated costs at the 4 digit code level
- Data on workload is also often unreliable and inconsistent across MTFs
  - CHCS coding module is cumbersome (e.g., common diagnoses cannot be found without scrolling through 100s of items) and too rigid (e.g., only allows for maximum of 3 procedures)
  - There are significant variations across MTFs in how work is coded and then attributed to MEPRS categories



# A market manager needs better information than is currently available to effectively make decisions (2/2)

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## Implications for MHS management

- Patient or provider data cannot currently be seamlessly tracked across the NCA MTFs
- Provider productivity assessments cannot be reliably conducted based on informatics systems alone (problems with both workload and clinical time)
- Some types of cost assessment analyses cannot be conducted based on informatics systems (issues with cost allocations)
- Coordinated contracting for facility services complicated by variations in informatics systems (inconsistent tracking across services)



**Tri-service healthcare management decisions  
may be impeded by an inability to conduct  
analyses using informatics systems**

DOD 1

# Other considerations summary

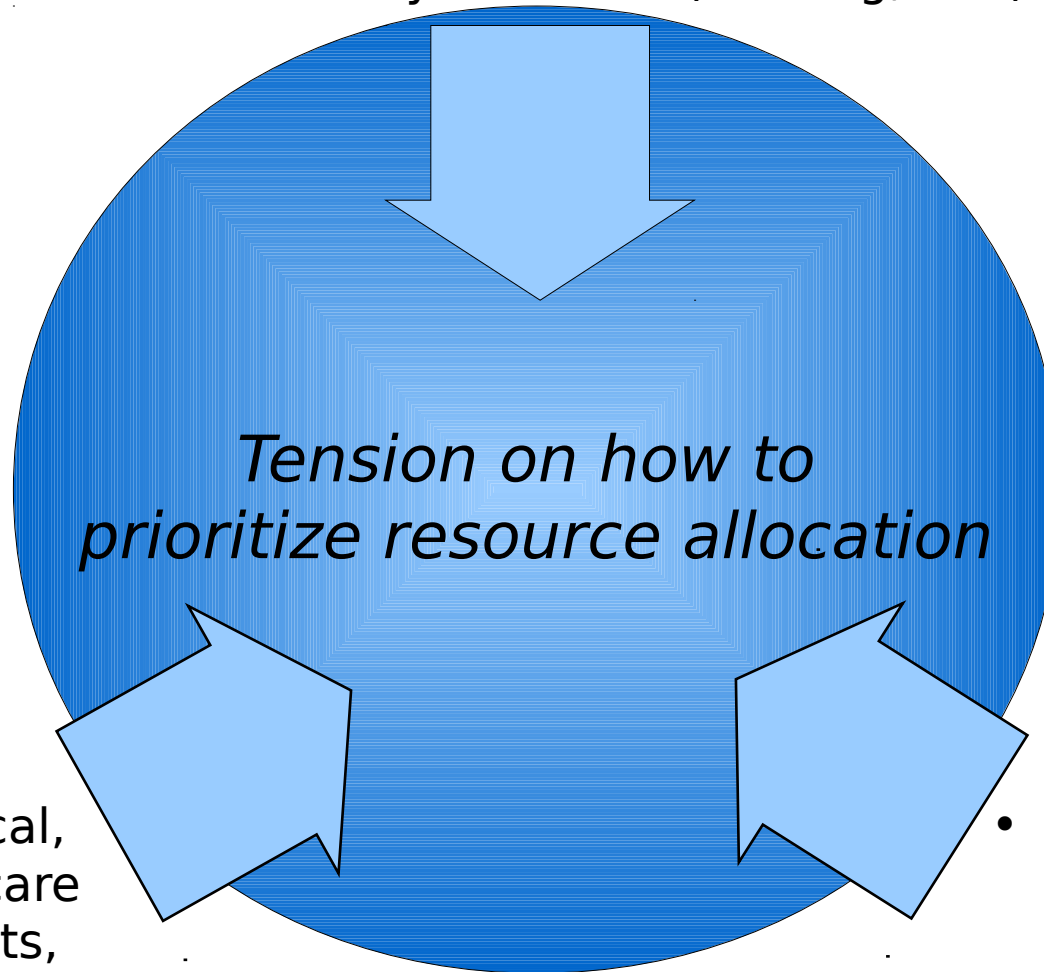
**DRAFT**

- Consider changing the Prime benefit (by using economic incentives) to decrease utilization of care
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  - Consider opportunities to optimize GME programs
  - Improve data quality and availability to facilitate decision making
- Clarify missions and priorities for institutions like NNMC and WRAMC, including those for the local market, peacetime care and national missions (training, deployments, etc.)

# It is critical to clarify and prioritize the competing missions for the NCA MTFs

**DRAFT**

- Serve as the cornerstone for Army, Navy, and Air Force military medicine (training, etc.)



- Optimize local, peacetime care (access, costs, etc.)

- Military readiness to support any US/NATO armed conflict

**DOD 1**

# Agenda

**DRAFT**

- NCA MHS findings
- Optimization vision for the NCA MHS
- Other considerations
- Short-term initiatives detail
- Detailed methodology

# Three initiatives could generate an incremental \$50-55M for the NCA

**DRAFT**

	Third party billing	Contracting	Pharmacy
Situation today:	<ul style="list-style-type: none"> <li>NCA collected \$18M from other health insurance in FY02 and is projected to collect \$16M in FY03</li> </ul>	<ul style="list-style-type: none"> <li>The bedded NCA MTFs are projected to spend \$69M on non-medical contracts in FY03</li> </ul>	<ul style="list-style-type: none"> <li>Prescriptions filled at retail cost the DoD more than scripts filled in MTFs, and retail volume is growing fastest in the NCA</li> </ul>
Opportunity:	<ul style="list-style-type: none"> <li>Increase collections, primarily by identifying more OHI* patients along with improving coding, documentation, and billing practices</li> </ul>	<ul style="list-style-type: none"> <li>"Best price" and volume savings can be generated through tri-service contract consolidation</li> </ul>	<ul style="list-style-type: none"> <li>Cost savings can be achieved by recapturing retail scripts to the MTFs or by achieving MHS pricing for retail scripts</li> </ul>
Potential benefits:	<ul style="list-style-type: none"> <li>Incremental collections of ~\$34M for the four NCA bedded MTFs</li> </ul>	<ul style="list-style-type: none"> <li>Full potential benefits across all categories of \$7M to \$10M annually</li> <li>Short to medium-term opportunity of \$4M to \$5.5M** annually</li> </ul>	<ul style="list-style-type: none"> <li>Full potential savings of \$13M to \$17M annually for the NCA by achieving MHS pricing for retail scripts or recapturing scripts</li> </ul>

\*Other health insurance

\*\* \$5.5M excludes NNMC from facilities maintenance consolidation analysis.

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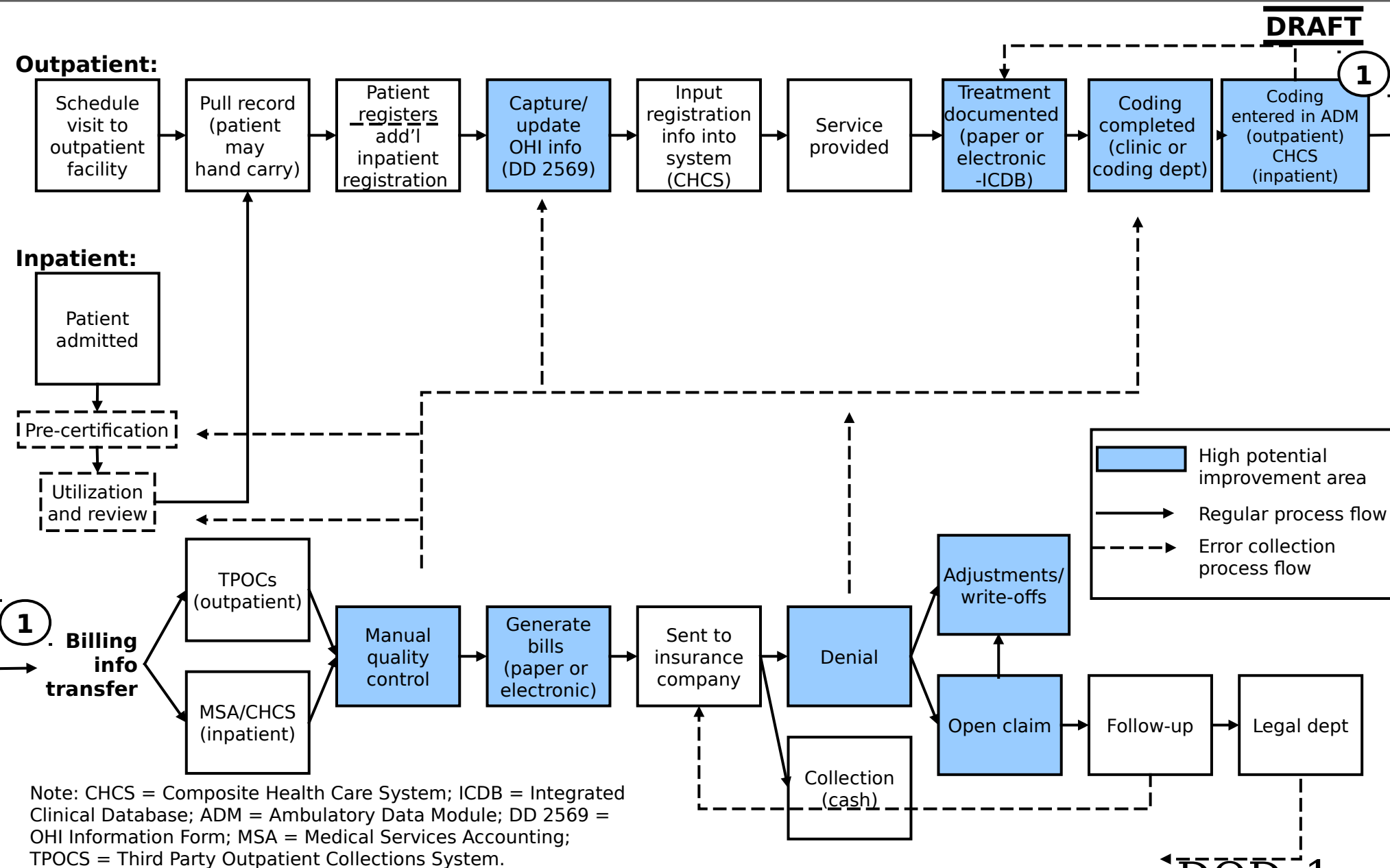
**DOD 1**

# Third party billing summary

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- There are several opportunities to improve the effectiveness of third party billing:
  - OHI information capture, coding accuracy, and processes to improve billing collection
- OHI information is not always collected for inpatient admissions or outpatient visits
- Though most visits and admissions appear to be coded, there is an opportunity to improve coding accuracy; a recent DeWitt coding pilot appears to have improved coding accuracy significantly
- Collections totaled \$18M during FY02 for the four bedded NCA MTFs, but significant open bills (\$18M) remain
  - Days receivable vary between ~130% and ~300% of civilian benchmarks
  - Collection processes can be improved and can be focused on a few third-party insurers
- The DeWitt third party billing pilot has identified four sets of key initiatives which could help drive incremental collections of \$34M if extended to the four bedded NCA MTFs (\$4M-\$5M at DeWitt)

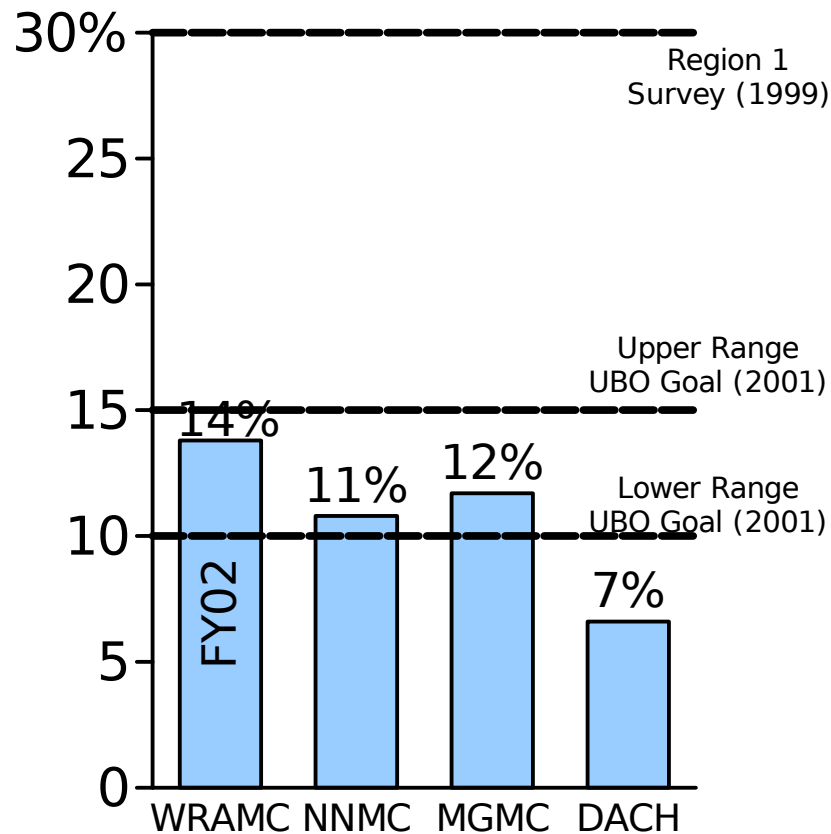
# Opportunities to improve third party billing exist at several stages in the process



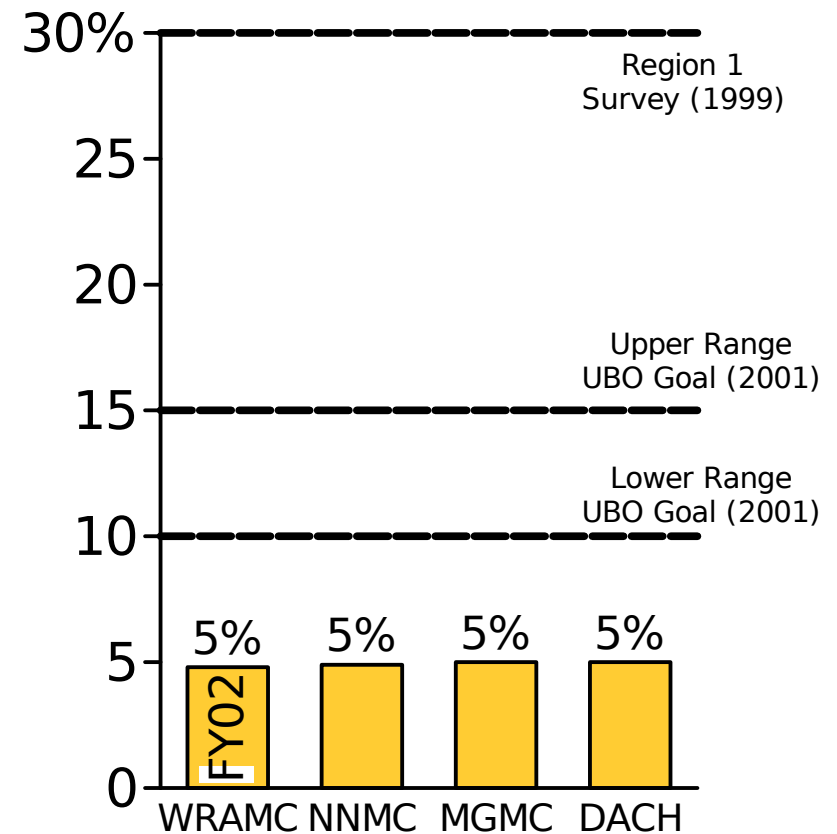
# OHI information collection rates are below full potential

**DRAFT**

## Inpatient claims/ total dispositions



## Outpatient claims/ total visits



Note: Upper line from Region 1, UBO Survey (1999); lower line from UBO Metrics Report (2001); ancillary and pharmacy included in outpatient.

Source: Form DD 2570 Reports (OHI Claims/Total Non-AD Visits); UBO Reports

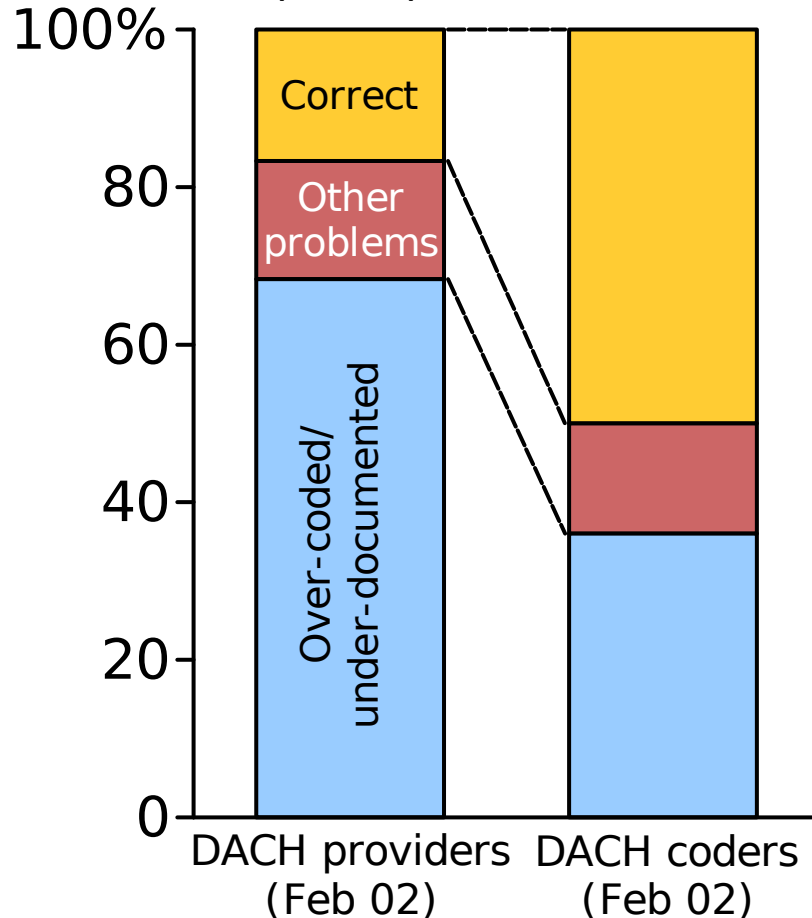


# A pilot at DeWitt appears to show that coding accuracy can be improved significantly

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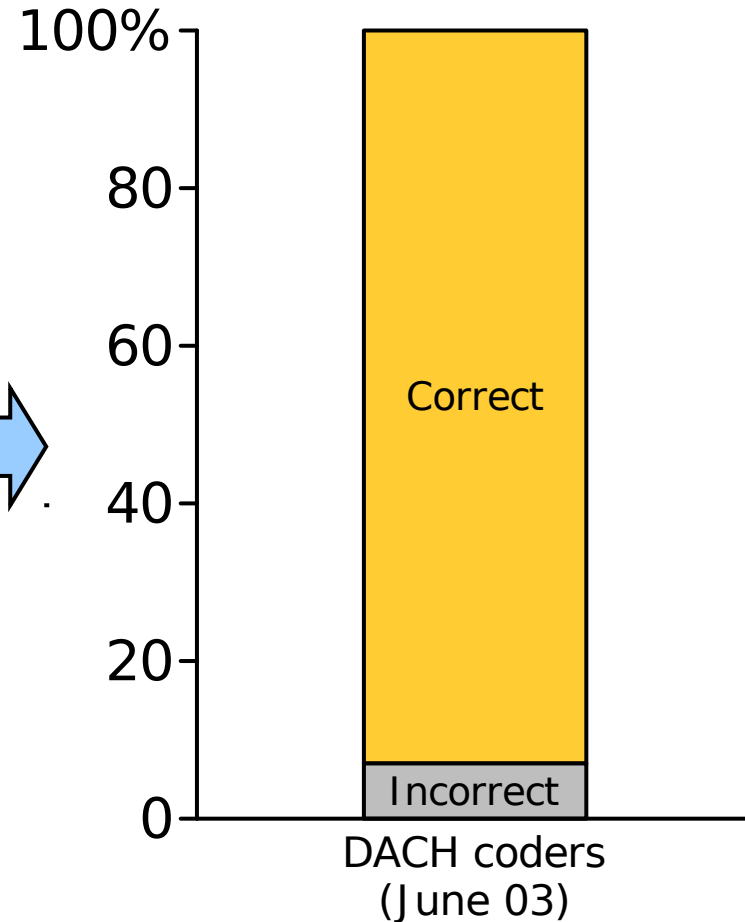
## Pre-coding pilot

Percent of outpatient records coded (2002)



## Post-coding pilot

Percent of outpatient records coded (2003)



Note: Accuracy determined by comparing coding to documentation in patient record; errors may be caused by either incorrect code or incorrect documentation; incorrect coding may not necessarily lead to insurance denial.

Source: CPT Reva Rodgers, "Evaluation of the Home-Grown Coder Initiative" Study (DACH, Internal Medicine, E&M Codes, 2002); DACH June 2003 Time Study (E&M Codes)

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**DOD 1**

# DeWitt has been successful in implementing data quality and coding best practices

**DRAFT**

## Summary

- DeWitt initiated an organization-wide effort to improve data quality and coding accuracy during FY03

## Key Actions

- **Improved coding practices**
  - Established centralized coding department for high volume clinics
  - Introduced “Home Grown Coding” program to train medical clerks to code
  - Recruited civilian coding expert to manage department and provide training to coders and providers
- **Created Data Quality Management Control Program (DQMCP) Team to spearhead initiatives**
  - Identified short and long term performance objectives
  - Provided assessment of processes to identify personnel, training, education and policy requirements
- **Involved top level leadership to drive change**
  - Monthly meeting to discuss progress and data quality report results
- **Built cross-functional team to implement and sustain changes**
  - Collaboration with Medical Record Committee, Executive Committee of the Medical Staff, Officer Professional Development Team
  - Filled MEPRS Chief Position and created Chief Coder position
- **Provided integrated view of the system**
  - Mapped patient and billing process to understand inter-dependencies across functions
  - Took “journey through eyes of the patient” to provide view to administration personnel

## Result

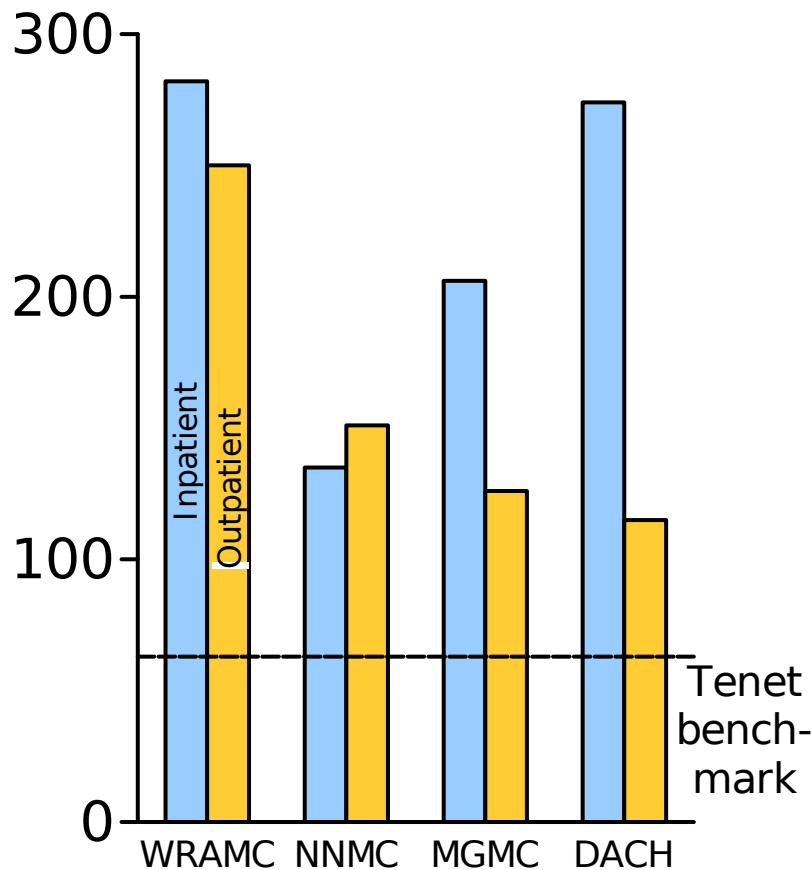
- **DACH has improved coding accuracy to 95-100% compliance**

Source: DACH FY03 Data Quality Statement; COL Sutton Interview

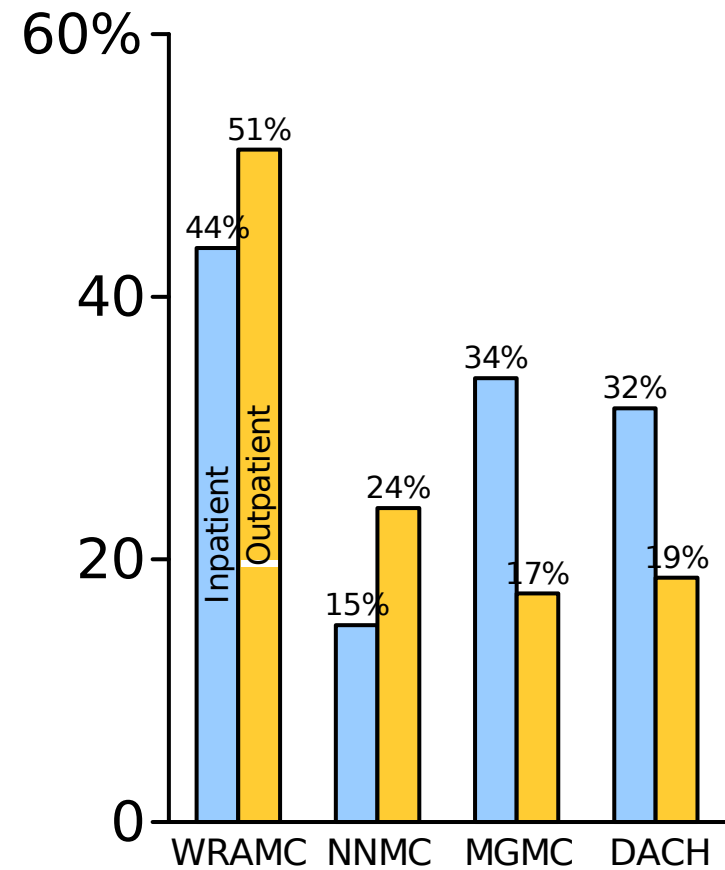
# There are significant open claims in the NCA as compared to civilian benchmarking

**DRAFT**

Current year days  
receivables\*



% of FY02  
billings that are open



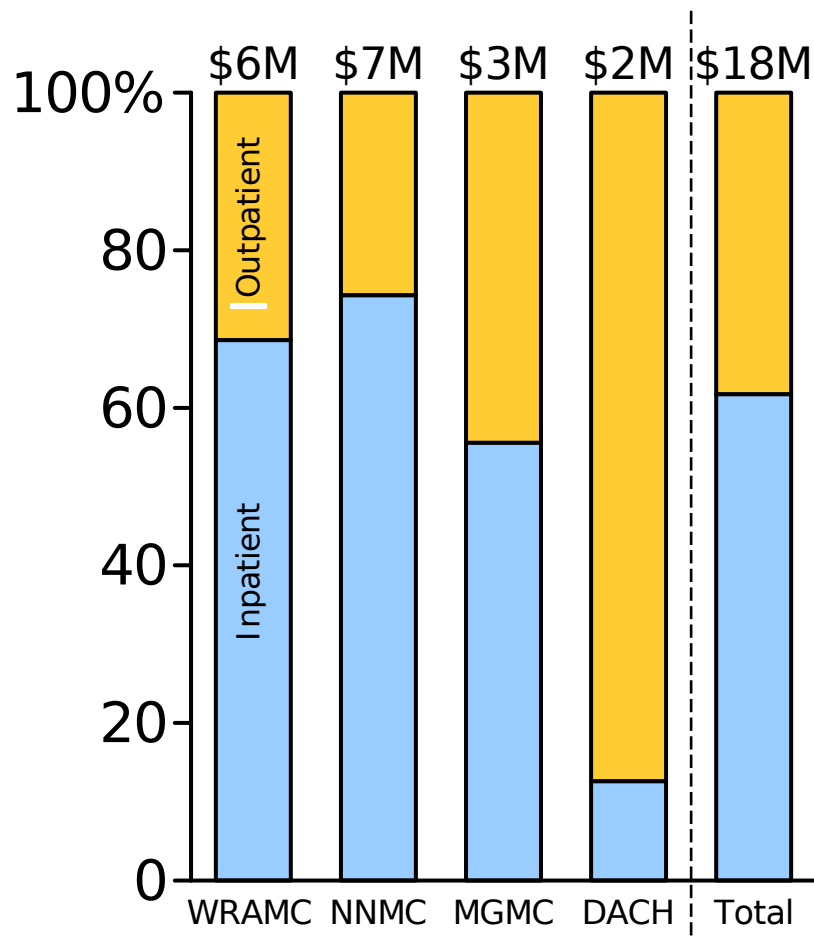
\* Current year days receivables includes only FY2002 open claims; Tenet calculated as of 12/2002; Days receivables = (accounts receivable)/(average daily revenues); Revenues defined net of adjustments.

Source: Form 2570 Reports (CFY Billings by CFY Result); HFMA Principles and Practices Board Statement #17; Hospital Annual Reports

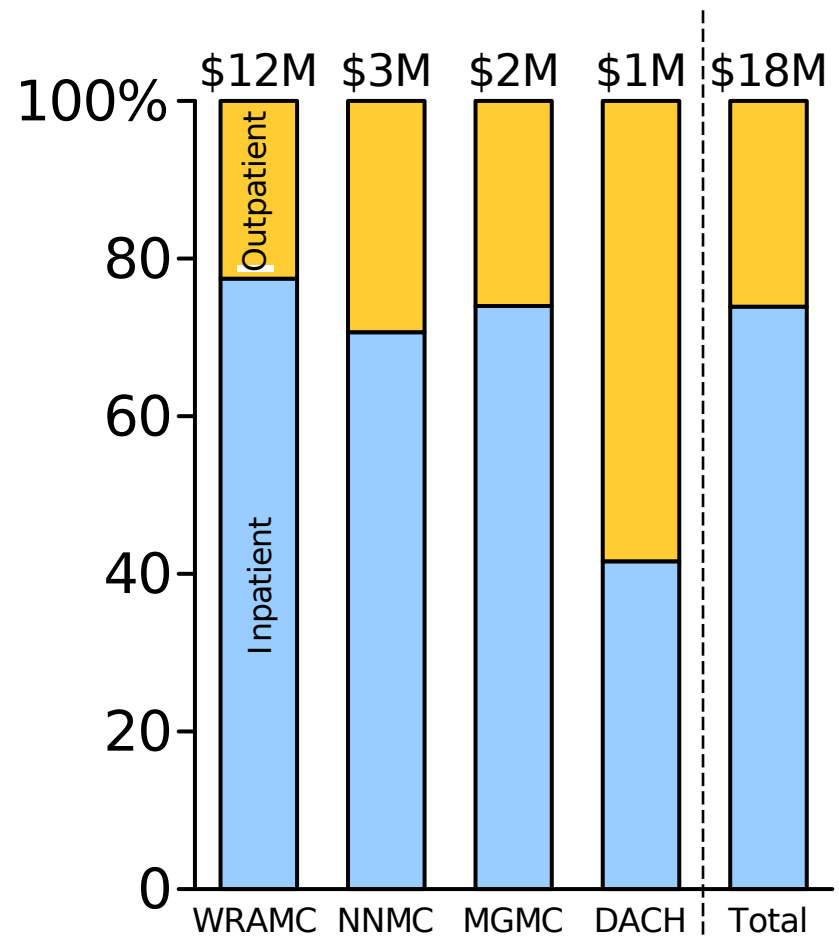
# The bedded facilities collected \$18M in FY02, but there is an additional \$18M classified as open claims

**DRAFT**

Total collections  
(FY02, \$M)\*



Total open claims  
(FY02, \$M)\*



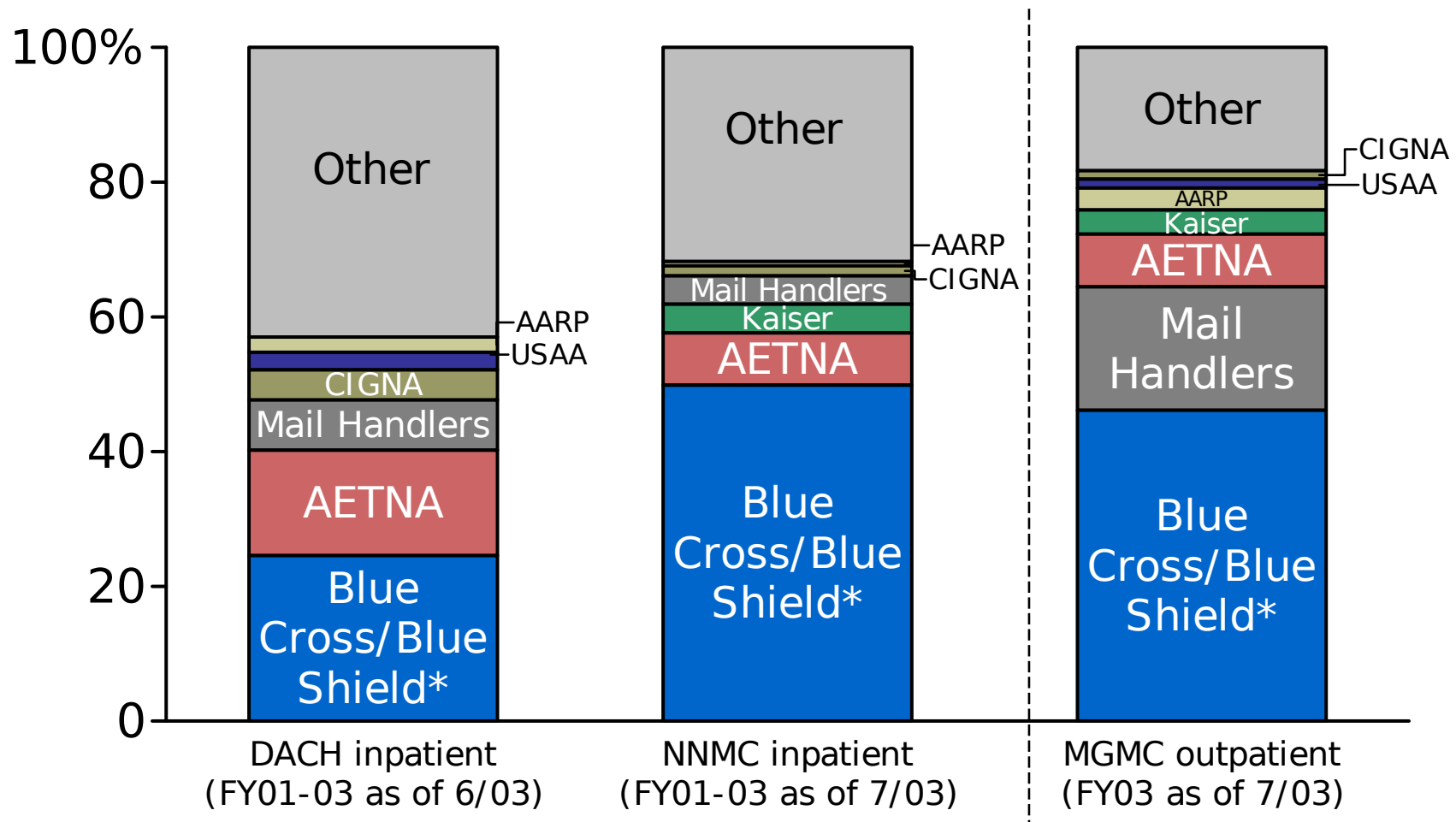
\* Total collections in FY2002 for claims generated in years FY2000-2002; The DOD divides currently open claims into yearly "tranches" based on original service date; Open claims for FY2002 only; Open claims may include some future write-offs.  
Source: Form 2570 Reports (FY 2002, 4<sup>th</sup> Quarter).

**DOD 1**

# Preliminary analysis suggests that most receivables are linked to a relatively small number of insurers

**DRAFT**

Open claims (\$)\*



Note: Blue Cross/Blue Shield includes multiple sub-entities (e.g., Federal, Anthem/Trigon, etc.); NMMC excludes block of one time claims.

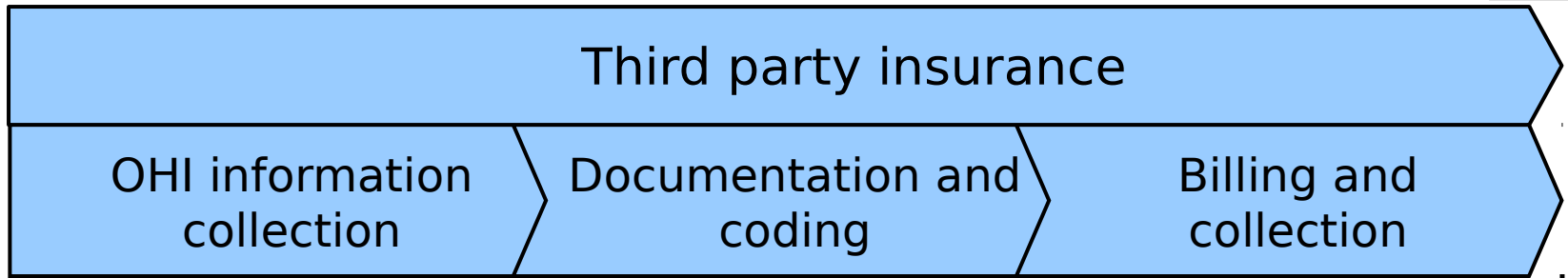
Source: MTF Aging Reports

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**DOD 1**

# There are several ways to improve third party collections

**DRAFT**



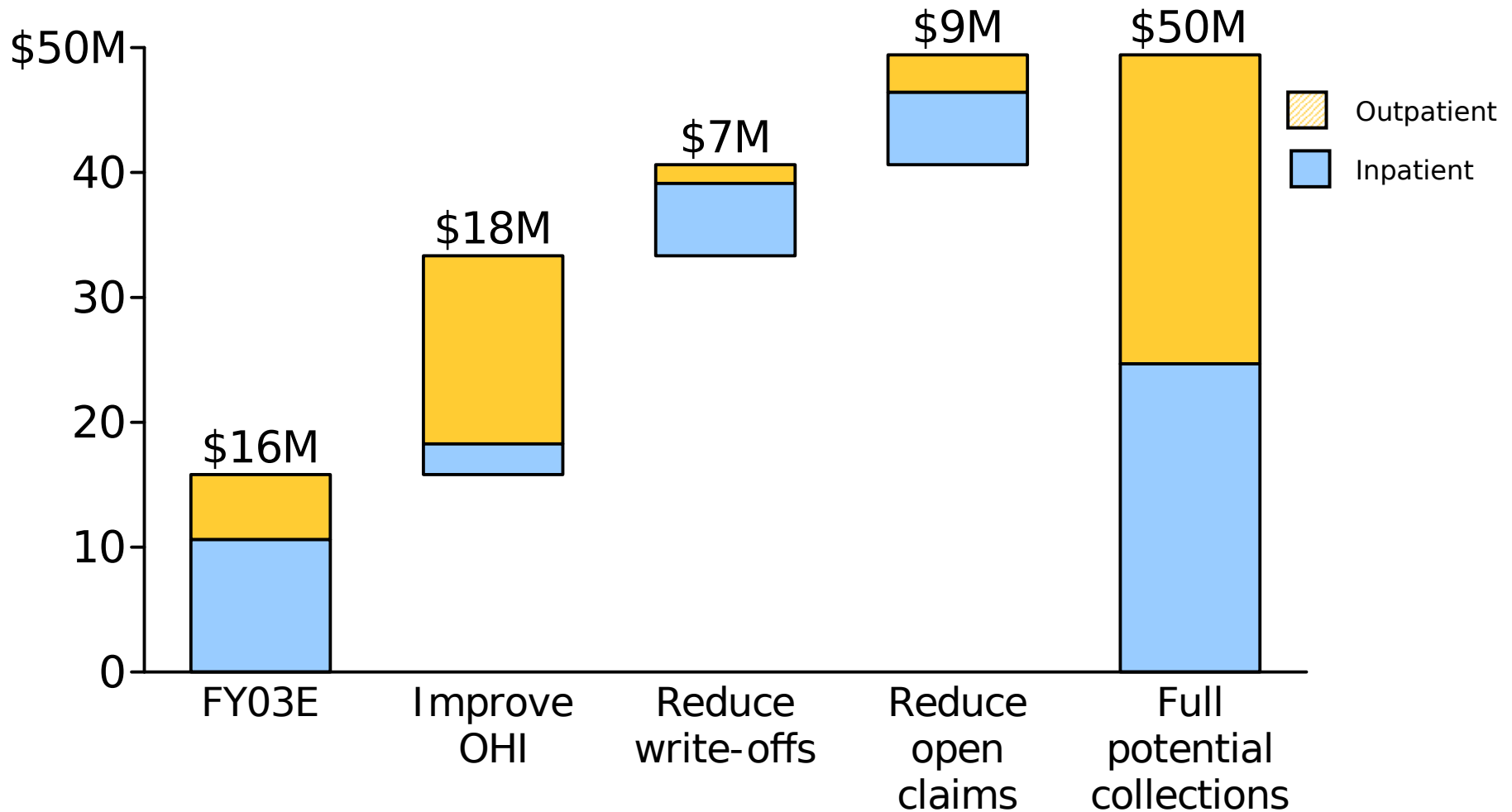
- |                                                             |                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div data-bbox="36 666 267 1406" data-label="Image"> </div> | <ul style="list-style-type: none"> <li>• <b>Train clinic clerks</b> to collect OHI information during the check-in process               <ul style="list-style-type: none"> <li>- Provide <b>incentives</b> for clerks to gather and update OHI information</li> <li>- <b>Track performance</b> by clinic</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>• Continue to <b>track coding accuracy</b></li> <li>• Revise coding based on <b>denied claims from insurance</b> companies</li> <li>• <b>Improve paper documentation</b> to enable more coding</li> </ul> | <ul style="list-style-type: none"> <li>• <b>Reduce time to process ancillary claims</b> (limit manual quality control)*</li> <li>• <b>Track denials</b> by insurance company</li> <li>• <b>Follow-up</b> with leading insurance companies about <b>multiple denied claims</b> at one time</li> </ul> |
|                                                             | <ul style="list-style-type: none"> <li>• <b>Educate</b> patients to provide OHI information by holding OHI <b>information days</b></li> <li>• Seek OHI information through <b>phone and mail drives</b></li> </ul>                                                                                                               | <ul style="list-style-type: none"> <li>• <b>Train</b> providers, coders, and billing department</li> <li>• Develop <b>electronic documentation</b> program</li> </ul>                                                                            | <ul style="list-style-type: none"> <li>• <b>Standardize follow-up</b> procedures and referrals to legal department</li> <li>• Consider <b>outsourcing</b> open <b>claims</b></li> <li>• <b>Address IT system</b> issues</li> <li>• Develop <b>electronic billing</b> system</li> </ul>               |

\*Addresses a major problem caused by outpatient itemized billing (OIB); ancillary includes lab, radiology, and pharmacy.  
 Source: MTF Interviews; Industry Interviews; HFMA; Aspen Group; DACH Third Party Billing Pilot (August 2003)

# Process redesign and application of best practices could increase third party collections by \$34M per year

**DRAFT**

Estimated full potential NMMC, WRAMC, MGMC and DACH third party collections\*



\*FY03 estimated based on FY03 partial YTD figures (may over-state baseline collections for FY03); Reduce write-offs includes improved coding and reduces potentially controllable write-offs by 50%; Reduce open claims reduces potentially controllable open claims by 50%; excludes mostly one-time effect of reducing outpatient itemized billing backlog.

Source: Form 2570 Reports; DACH Reports; DACH Denial Study; Bain Analysis

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**DOD 1**

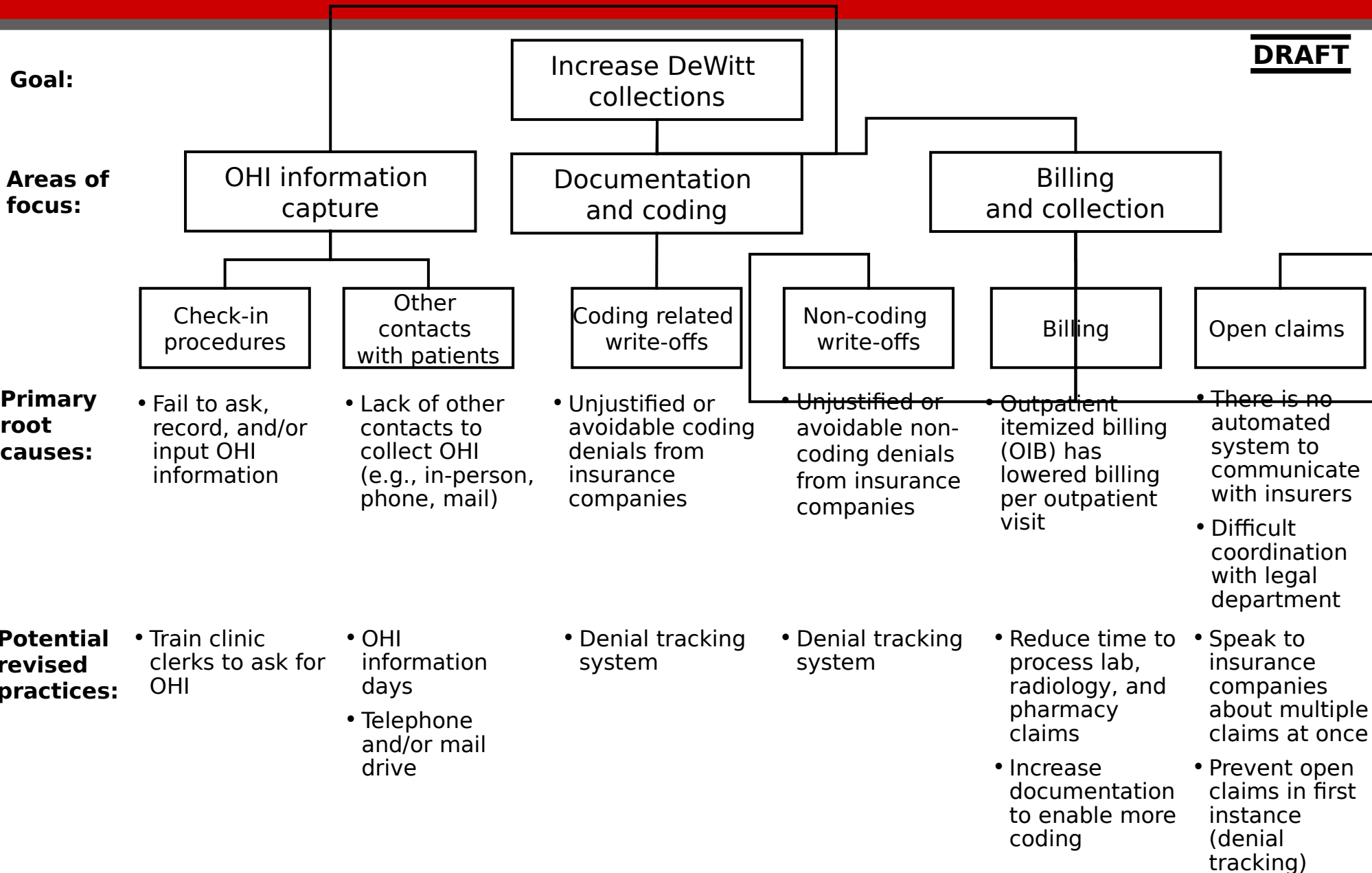
# The DeWitt third party billing team has addressed the potential to increase collections

**DRAFT**

- Team sponsor:**
- COL Loree Sutton (DACH)
- Team champions:**
- CPT Robin Williams (DACH) and CPT Eric Poulsen (WRAMC)
- Pilot team:**
- COL John Kugler (DACH)
  - LTC Charlotte Hough (DACH, Deputy Primary Care and Chief of Community Medicine)
  - Dr. Aaronson (DACH, Family Medicine)
  - Aretha Woods (DACH, Third Party Collections)
  - Beverly Hamilton (DACH, Third Party Collections)
  - Brenda Gaines (DACH, Deputy Chief, Managed Care Division)
  - Robin Hughes-Harris (DACH, Coding Supervisor, Coding Department)
  - Dennis Mack (DACH, Treasury)
  - Loretta Vazquez (DACH, Data Quality)
  - Betty Thomas (DACH, Utilization Management)
  - Liza Recto (DACH, Utilization Management)



# The pilot team has identified several opportunities

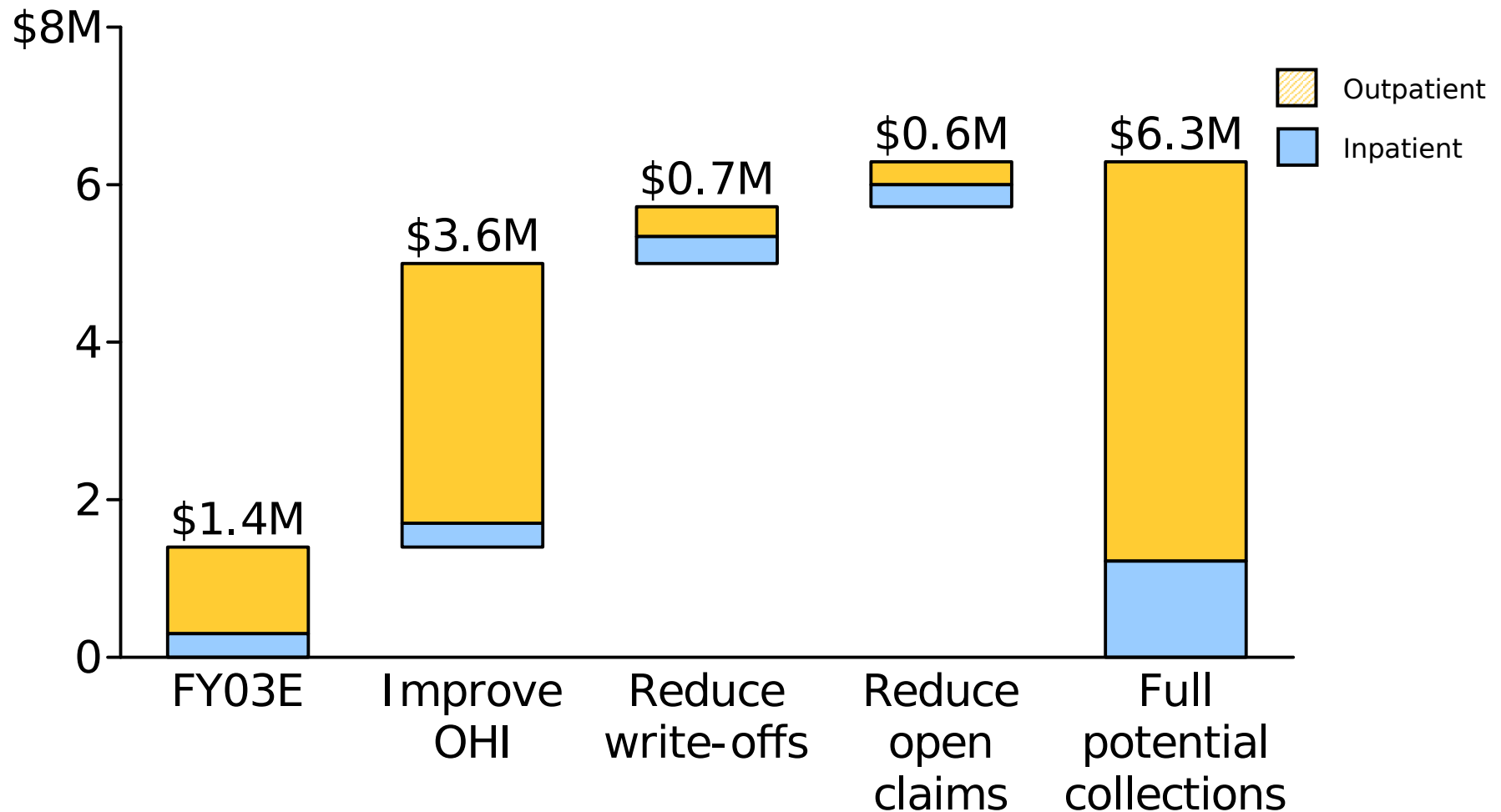
**DRAFT**

DOD 1

# DeWitt third party collections could increase by \$4-5M

**DRAFT**

Estimated full potential  
DACH third party collections\*



\*FY03 estimated based on FY03 partial YTD figures (may over-state baseline collections for FY03); Reduce write-offs includes improved coding and reduces potentially controllable write-offs by 50%; Reduce open claims reduces potentially controllable open claims by 50%; excludes mostly one-time effect of reducing outpatient itemized billing backlog.

Source: Form 2570 Reports; DACH Reports; DACH Denial Study; Bain Analysis

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# The pilot team has identified several opportunities

**DRAFT****Goal:**

Increase DeWitt  
collections

**Areas of  
focus:**

OHI information  
capture

Documentation  
and coding

Billing  
and collection

Check-in  
procedures

Other  
contacts  
with patients

Coding related  
write-offs

Non-coding  
write-offs

Billing

Open claims

**Primary  
root  
causes:**

- Fail to ask, record, and/or input OHI information

- Lack of other contacts to collect OHI (e.g., in-person, phone, mail)

- Unjustified or avoidable coding denials from insurance companies

- Unjustified or avoidable non-coding denials from insurance companies

- Outpatient itemized billing (OIB) has lowered billing per outpatient visit

- There is no automated system to communicate with insurers
- Difficult coordination with legal department

**Potential  
revised  
practices:**

- Train clinic clerks to ask for OHI

- OHI information days
- Telephone and/or mail drive

- Denial tracking system

- Denial tracking system

- Reduce time to process lab, radiology, and pharmacy claims
- Increase documentation to enable more coding

- Speak to insurance companies about multiple claims at once
- Prevent open claims in first instance (denial tracking)

DOD 1

# OHI information at DeWitt is not consistently collected and documented

**DRAFT**

## Current approach

## Source of breakdown



Significant issue



Not very significant issue

## Issues affecting information capture

Clerk asks patient for OHI at visit check-in



Patient fills out Form 2569\* and returns to clerk



Clinics bring Form 2569 to Third Party Collections (TPC) office



TPC updates OHI info into CHCS



- **Failure to ask for OHI** information (new or updated) as part of check-in process
- **No screen in CHCS to prompt** clerk for OHI information
- **Clerk does not have Form 2569** to distribute
- **Clerk does not collect forms** from patient
  - Physician/Nurse is unfamiliar with Form 2569 and does not collect it either
- **Inaccurate or incomplete information on form**
  - Clerks do not make copy of insurance card (front and back)
- **No formalized process to bring forms to TPC Office**
  - Forms not sent to TPC office for processing
- **Individual updates do happen, but no clinic-level metrics are kept on OHI information collection**
  - No record of Form 2569 collected by clinic

\*Form 2569 is the official form for collecting and storing other health insurance (OHI) information for non-active duty beneficiaries

Source: MTF Interviews; Third Party Collections Program Office; Patient Administration; Clinic Personnel

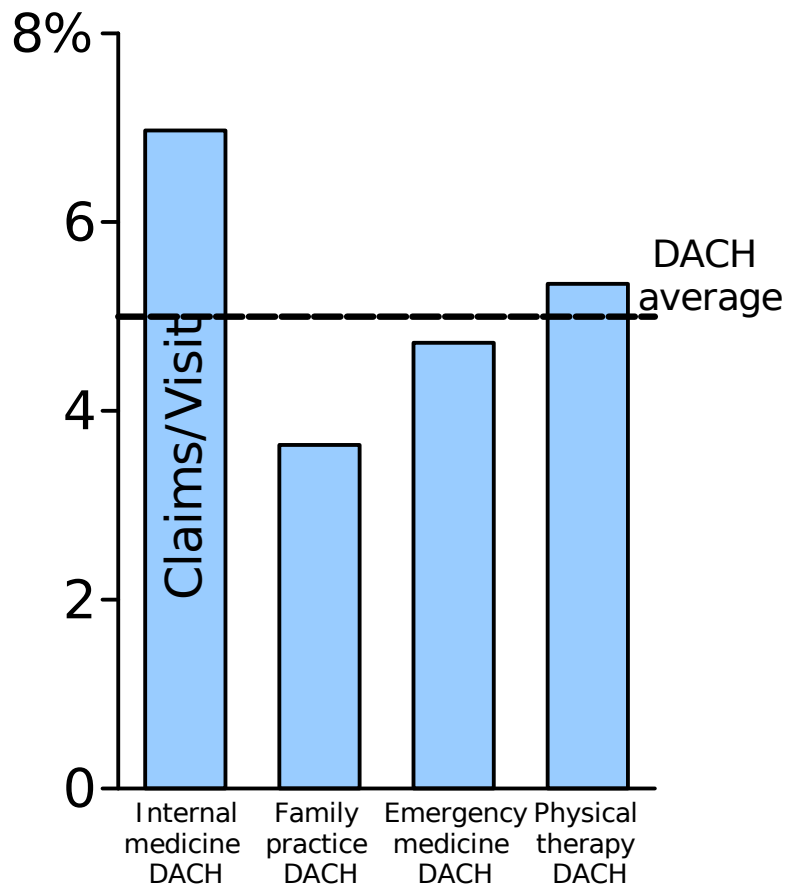
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# Variation in OHI capture across clinics indicates need to standardize the process across DeWitt

**DRAFT**

## FY02 OHI collection rates by clinic

OHI claims/total visits



Source: MTF Interviews; DACH reports

## Successful practices for OHI capture

- **Consistent OHI information capture during check-in process**
  - Clerks have standard sequence of questions during check-in
  - Clerks have replenished supply of Form 2569 at hand
- **Ensure correct completion of OHI forms**
  - Clerk monitors whether patient has completed form
  - Clerk attaches copy of insurance card (front and back) to Form 2569
- **Clear process to transfer forms to TPC office for processing**
  - Establish clear responsibilities to deliver forms to TPC office (either TPC office picks up or clerks deliver)
  - Central repository for OHI forms in clinic

# There are at least three options for increasing information capture

**DRAFT**

## Train clinic clerks

## OHI information days

## Phone and/or mail drive

### Approach:

- **Train clinic clerks to collect OHI information**
  - Clerk prompted by OHI computer pop-up screen
  - Clerk photocopies insurance card (front and back) and hands out 2569 form
  - Patient required to return form
  - Clerk reviews form for completed information
  - Original 2569 stored in patient record, copies sent to TPC and coding department
- **Monthly tracking of performance by clinic published facility-wide**
- **Set-up station in high traffic area (e.g. pharmacy) to collect OHI information**
  - Consider using volunteers to distribute and collect OHI forms and make copies of insurance cards
  - TPC representative can enter data into the system
  - Patients given buttons (or something similar) to acknowledge their participation
- **Quarterly phone drive** to call non-active duty (non-AD) beneficiaries requesting OHI information
  - Caller provides explanation of TPC objectives
- **Quarterly mailing** to non-AD beneficiaries ("piggy-back" on other mailings)

### Requirements:

- **Training for clerks** on OHI collection (initial and quarterly)
- **Educate full clinic staff** on OHI
- **Kick-off campaign** with contest between clinics with incentives
- **Volunteers/personnel** to help distribute and collect 2569 forms
- **TPC office representative** to enter 2569 information
- **Call center resources** to manage phone drive
- Personnel resources to handle **envelope/letter processing** for a mailing

# Successful implementation requires managing risks and implementing measurement metrics

the  
to

**DRAFT**

Train clinic clerks

OHI information days

Phone and/or mail  
drive

Potential upside:

- **Increase OHI information capture and generate patient awareness**

Implementation  
barriers/risks:

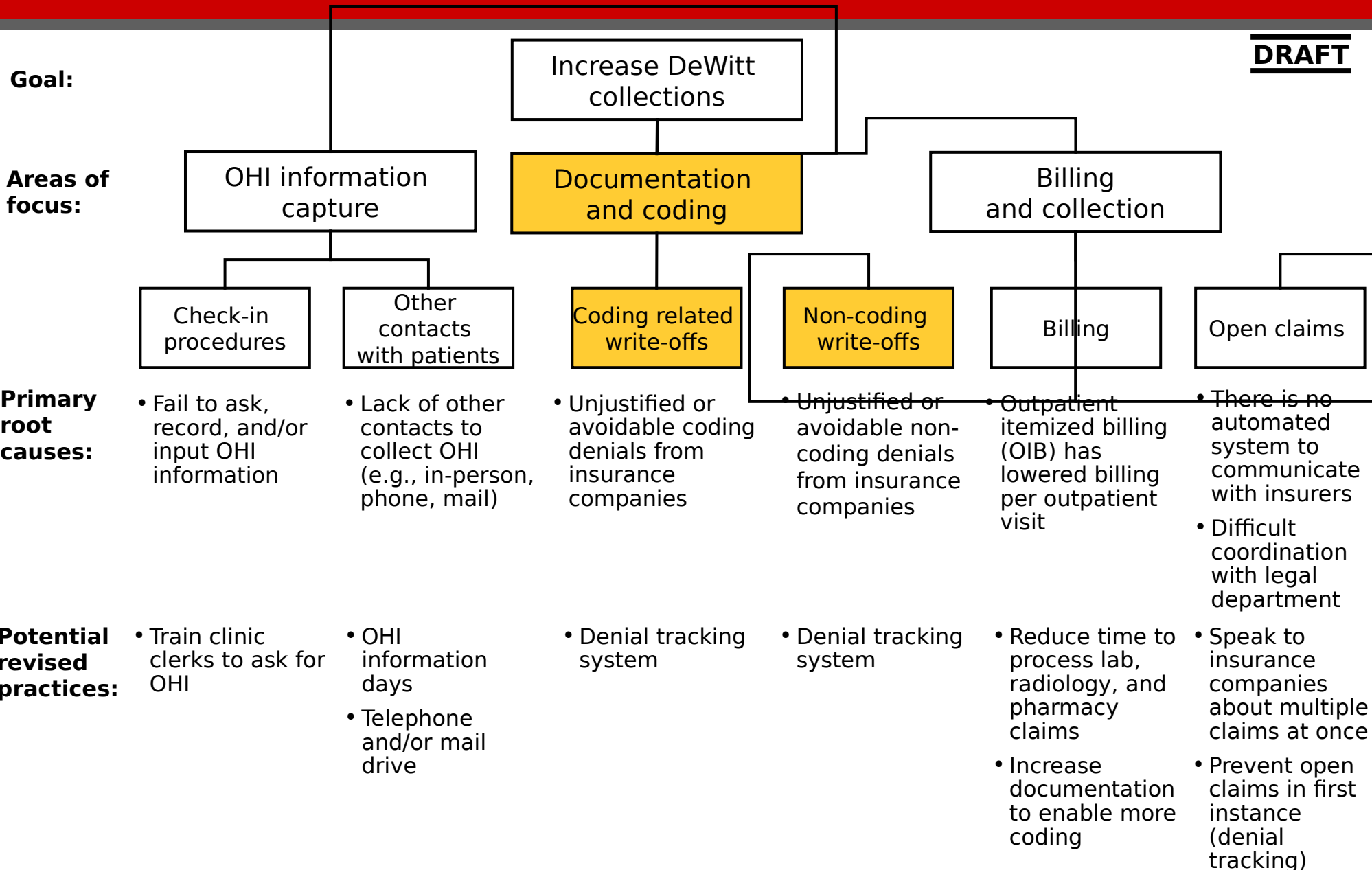
- Longer patient check-in time
- Increased clerk responsibility
- Limited access to copy machines (may need additional copy machines)
- Need to confirm that volunteers can collect OHI
- Low response rate for phone or mail drive
- Personnel to make phone calls and prepare mailings

Measurement  
metrics:

- OHI claims/visits (monthly)
- Number of 2569 forms/visits (monthly)
- Number of new/updated 2569 forms completed
- Response rate
- Number of new/updated 2569 forms completed
- Response rate

DOD 1

# The pilot team has identified several opportunities

**DRAFT**

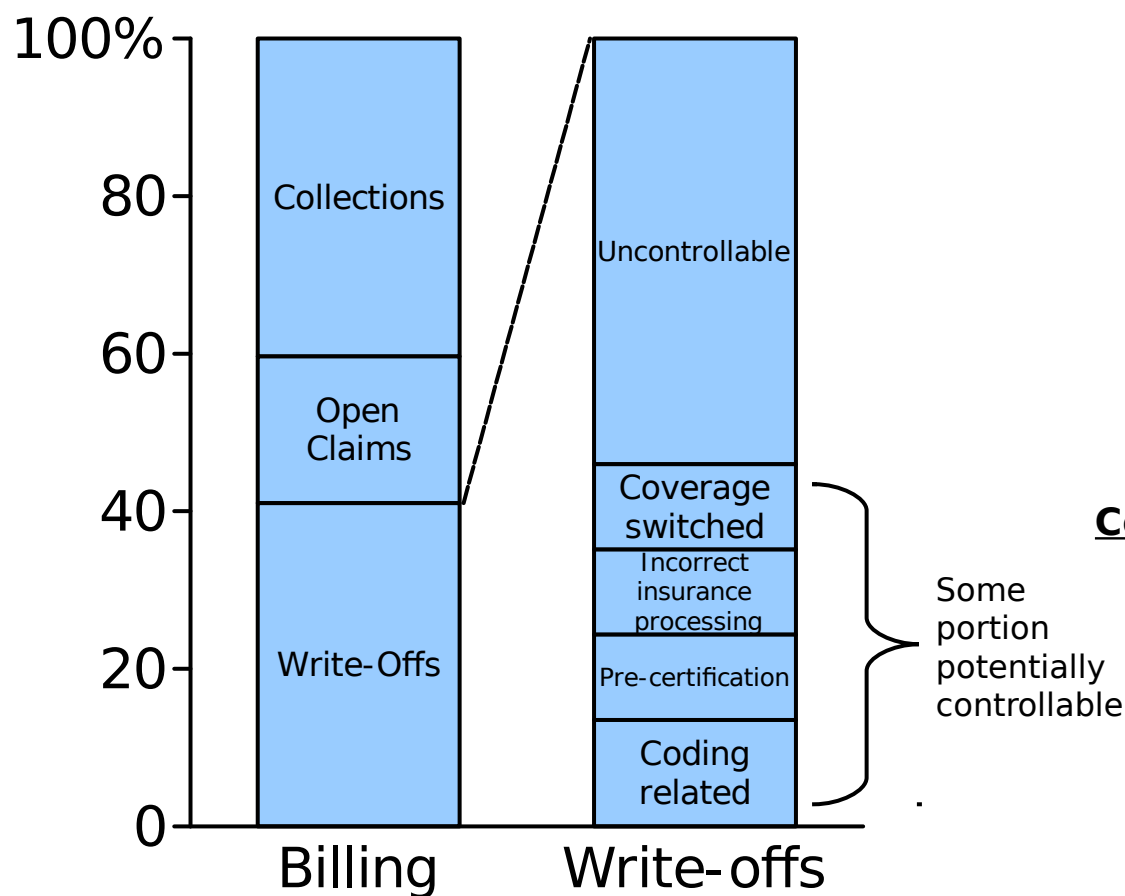
DOD 1



# Nearly half of outpatient write-offs may be controllable

**DRAFT**

Percent of outpatient



## Controllable coding related write-offs

- Insufficient coding of patient history for injury related visits
- Incorrect provider listed for procedure
  - Nurse coded as provider rather than doctor
- Incorrect diagnosis code associated with visit
  - Primary diagnosis code listed not applicable to visit

## Controllable non-coding write-offs

- Failure to secure pre-certification for certain visits or procedures
- Insurance company commits recurring errors in processing
- MTF is not aware that patient has switched insurance companies

Note: Uncontrollable driven primarily by deductibles and co-pays paid for by the MTFs and write-offs for services not covered by insurance plan.

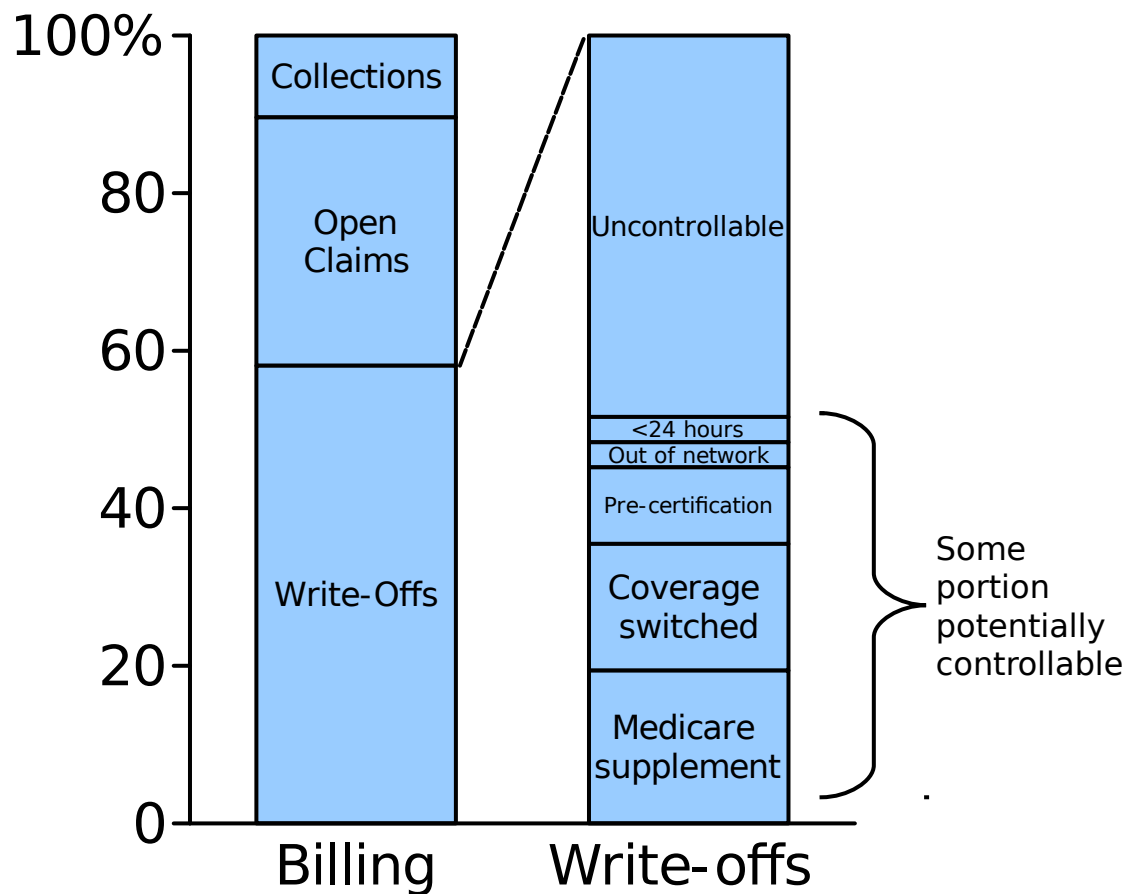
Source: DACH Denial Study (N=37); Form 2570 Reports

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# A large percentage of non-coding write-offs may also be controllable for inpatient care

**DRAFT**

Percent of inpatient



## Controllable inpatient write-offs

- Payment reduced because patient has a Medicare Supplement plan (patient may have regular insurance instead)
  - Consistent with findings in Walter Reed Army Audit\*
- MTF is not aware that patient has switched insurance companies
- Failure to secure pre-certification for certain visits or procedures
- Insurance company will not reimburse for out-of-network hospital stays even though DoD is an eligible out-of-network provider
- MTF bills patient for inpatient service when stay is less than 24 hours
  - Would receive payment if billed as outpatient

\*Army Audit Agency audit on Third Party Collection Program at WRAMC, February 2003.

Note: Uncontrollable driven primarily by deductibles and co-pays paid for by the MTFs.

Source: DACH Denial Study (N=31); Form 2570 Reports

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# Providing denial feedback to coders and clinics could help address the root causes of denials

**DRAFT**

## Adopt denial **tracking**

### Approach:

- **Track denials** from insurance companies
  - Denials occur when insurance companies refuse payment for OHI claims
- **Prevent controllable denials** from occurring again in the future

### Requirements:

- **Track all denials** from insurance companies by: **type** (e.g., improper diagnosis code, service not covered), **insurance company** (BCBS/CareFirst, Aetna, Mail Handlers, etc.) and **clinic**
- Request **“denial” reports** from leading insurance companies
- **Request manuals** from leading insurance companies to learn from their processes

## Provide **denial information** to coders and clinics

- Provide **“denial” report** to coding centers and clinics (outpatient coding department, coding clinics, etc.)
- **Identify coding and other process changes** to prevent denials from occurring in the future
- **Conduct follow-up discussions with leading insurance companies** when explanation of benefits (EOB) letter from insurance company lacks sufficient detail
- Provide **incentives** for reducing denials to coders and clinics
- **Consult manuals** from leading insurance companies as appropriate
- **Submit copy of OHI Form 2569 to coding department** (along with SF600 documentation form) so coding department can code to specific insurance plan requirements

# Measurement metrics should be used to track performance

**DRAFT**

## Adopt denial **tracking**

## Provide **denial information** to coders and clinics

Potential upside:

- **Increase collections by reducing write-offs** for coding and non-coding reasons

- Develop capability to **prevent coding errors** from recurring in the future

Implementation barriers/risks:

- Will require additional time for claims assistant to fill out denial report
- Manual tracking system may not uncover all avoidable write-offs

- May require additional communication with insurance companies to clarify reason for coding-related denials

Measurement metrics:

- Top 3 denial reasons for insurer (tracking each quarter)
- Billing ratio analysis (quarterly):
  - Write-offs/Billed
  - Open claims/Billed
  - Collections/Billed

- Top 3 coding denial reasons by insurer (tracking each quarter)
- Top 3 denial reasons by clinic (tracking each quarter)

# The pilot team has identified several opportunities

**DRAFT****Goal:**

Increase DeWitt  
collections

**Areas of  
focus:**

OHI information  
capture

Documentation  
and coding

Billing  
and collection

Check-in  
procedures

Other  
contacts  
with patients

Coding related  
write-offs

Non-coding  
write-offs

Billing

Open claims

**Primary  
root  
causes:**

- Fail to ask, record, and/or input OHI information

- Lack of other contacts to collect OHI (e.g., in-person, phone, mail)

- Unjustified or avoidable coding denials from insurance companies

- Unjustified or avoidable non-coding denials from insurance companies

- Outpatient itemized billing (OIB) has lowered billing per outpatient visit

- There is no automated system to communicate with insurers
- Difficult coordination with legal department

**Potential  
revised  
practices:**

- Train clinic clerks to ask for OHI

- OHI information days
- Telephone and/or mail drive

- Denial tracking system

- Denial tracking system

- Reduce time to process lab, radiology, and pharmacy claims
- Increase documentation to enable more coding

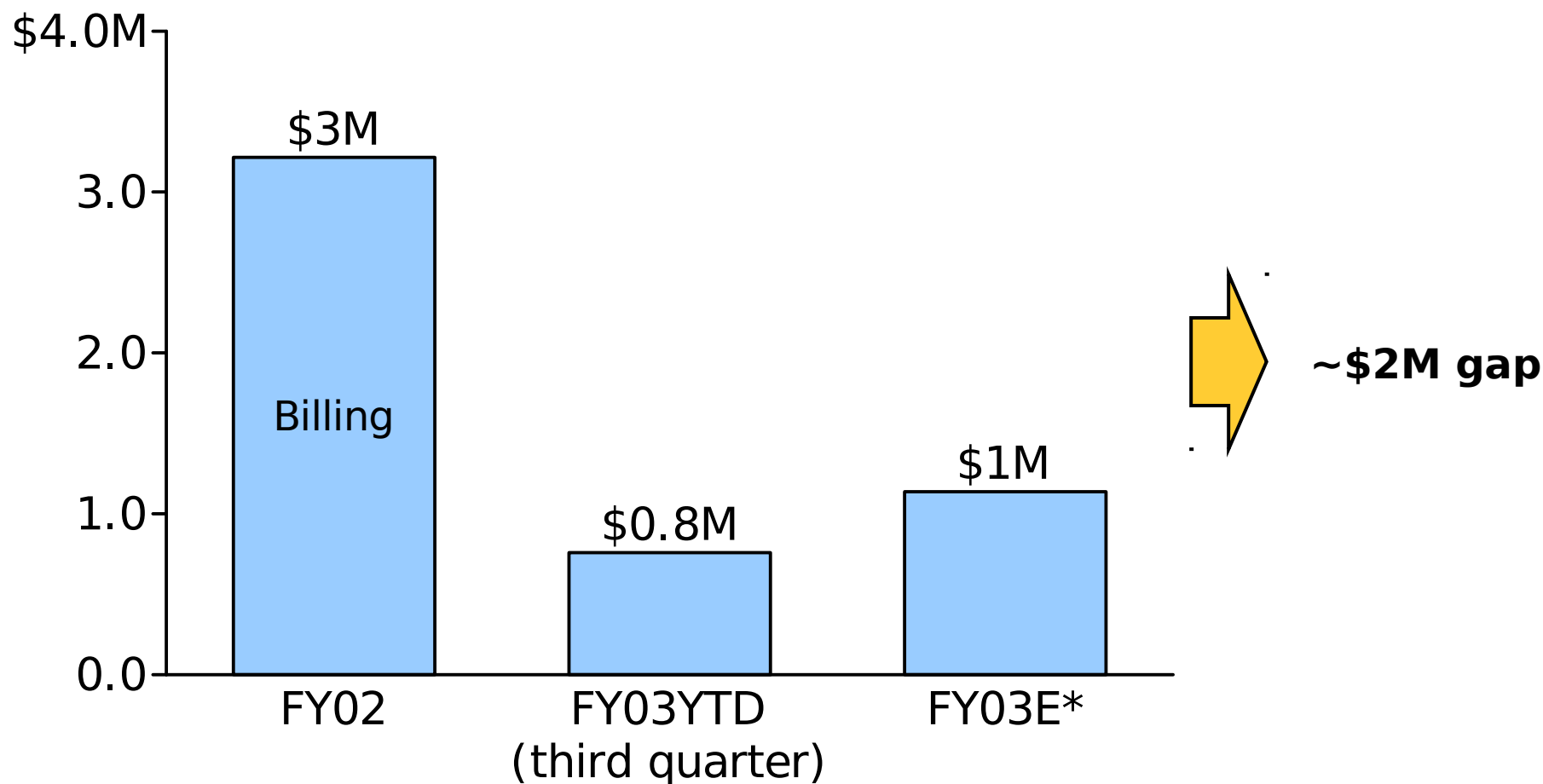
- Speak to insurance companies about multiple claims at once
- Prevent open claims in first instance (denial tracking)

DOD 1

# Outpatient itemized billing (OIB) has lowered collections by causing a decrease in billing

**DRAFT**

## DeWitt outpatient billing



\*FY03E estimated based upon FY03YTD.

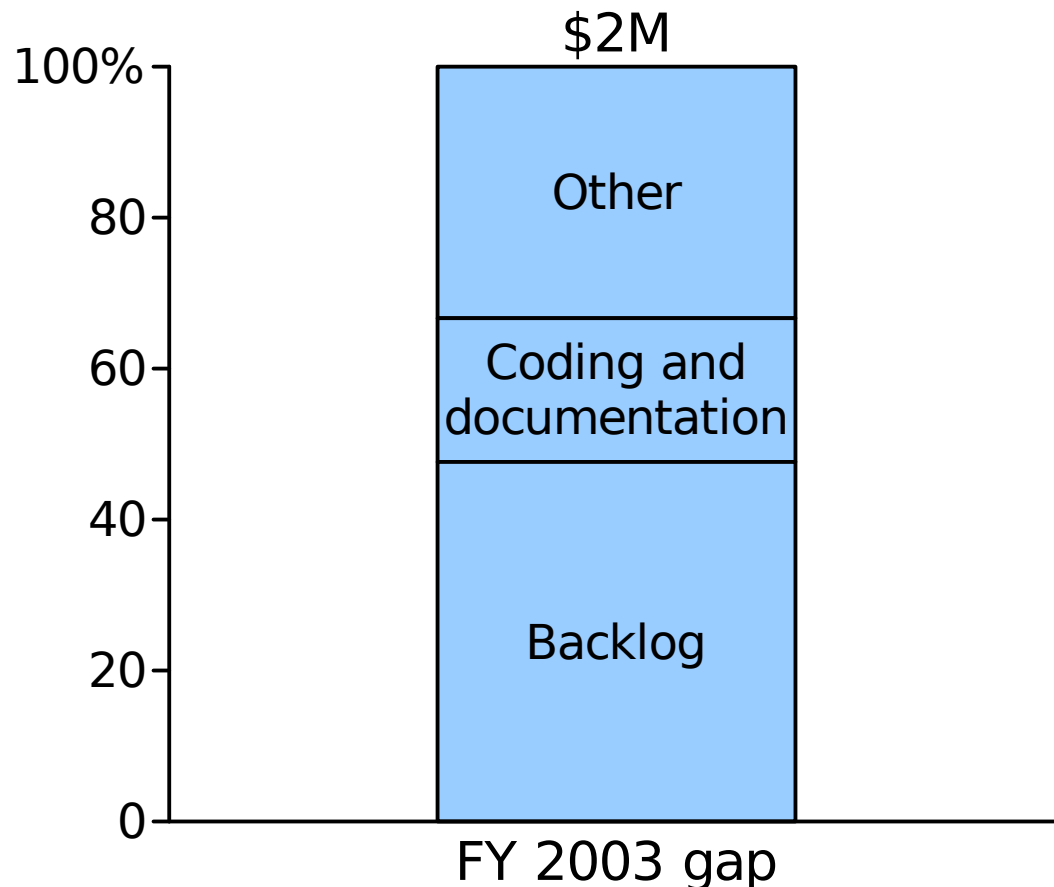
Source: Form 2570 Reports; MTF Personnel Interviews

# The gap in billing is due to backlog and documentation that understates the complexity of visits

**DRAFT**

## Estimated sources of outpatient billing gap

Percent of billing gap



## Description

- Certain ER and APV charges do not include full facility fee resulting in lower bill/visit
- Increased coding accuracy relative to documentation (vs. visit)
  - Documentation understates complexity of visits resulting in lower bill/visit
- Outpatient itemized billing (OIB) has created a backlog of claims
  - By migrating to OIB, the number of claims per visit has increased
  - Ancillary bills such as laboratory, radiology, and pharmacy take longer to process than before OIB

# DeWitt should consider adopting the following practices to close the billing gap

**DRAFT**

## Reduce time to process ancillary claims

### Approach:

- **Reduce time to process** laboratory, radiology, and pharmacy claims
- **Reduce manual processes** for “fixing” incorrect ancillary claims

### Requirements:

- Consider **keeping ancillary claims bundled** with associated clinic claim
- Locate **missing diagnosis codes** for ancillary claims
  - Coordinate with clinics to find missing diagnosis codes
  - Work with TMA/UBO to fix TPOCS system failure with respect to finding relevant diagnosis codes for non-bundled ancillary claims

## Improve documentation

- **Improve documentation** for patient visits to allow for higher complexity coding

- **Clinicians must provide additional documentation** to enable full coding of visit
  - Short-term paper process improvements
  - Long-term adoption of electronic documentation system (DACH pilot in progress)

Note: UBO = Uniform Business Office; TMA = Tricare Management Authority; TPOCS = Third Party Outpatient Collections System



# Closing the gap may require changing billing and documentation procedures

**DRAFT**

## Reduce time to process ancillary claims

### Potential upside:

- Substantially **reduce billing backlog**
- **Provide claims clerks more time** to pursue denial tracking and other activities

### Implementation barriers/risks:

- Need to **confirm that ancillary and non-ancillary claims can remain “bundled”** without causing erroneous MEPRS allocation

### Measurement metrics:

- May require **TMA/UBO effort** to find system-related solution for missing diagnosis codes
- Current year outpatient billings/prior year outpatient billings (quarterly)
- Outpatient claims processed per quarter/FTE (quarterly)

## Improve documentation

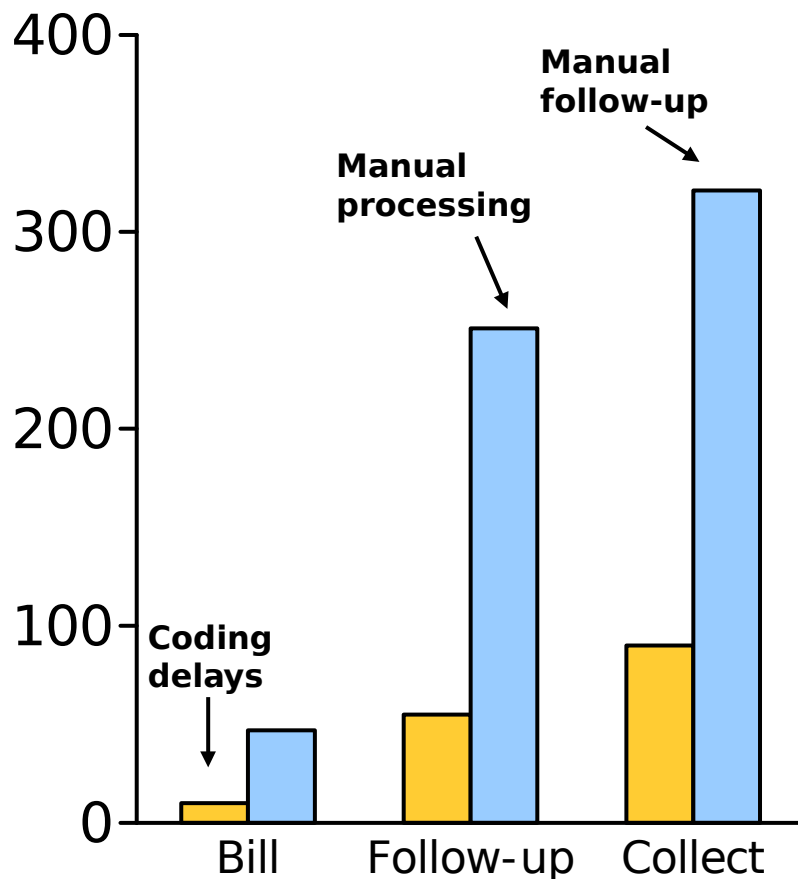
- **Increase amount billed per OHI visit**
- **Reduce risk of insurance company denials**

- **Short-term coordination with clinicians** to enhance documentation (will require additional time to document)
- Long-term **roll-out of electronic documentation system** will require change in clinician practices
- Outpatient billing per OHI claim
- Write-offs due to coding issues

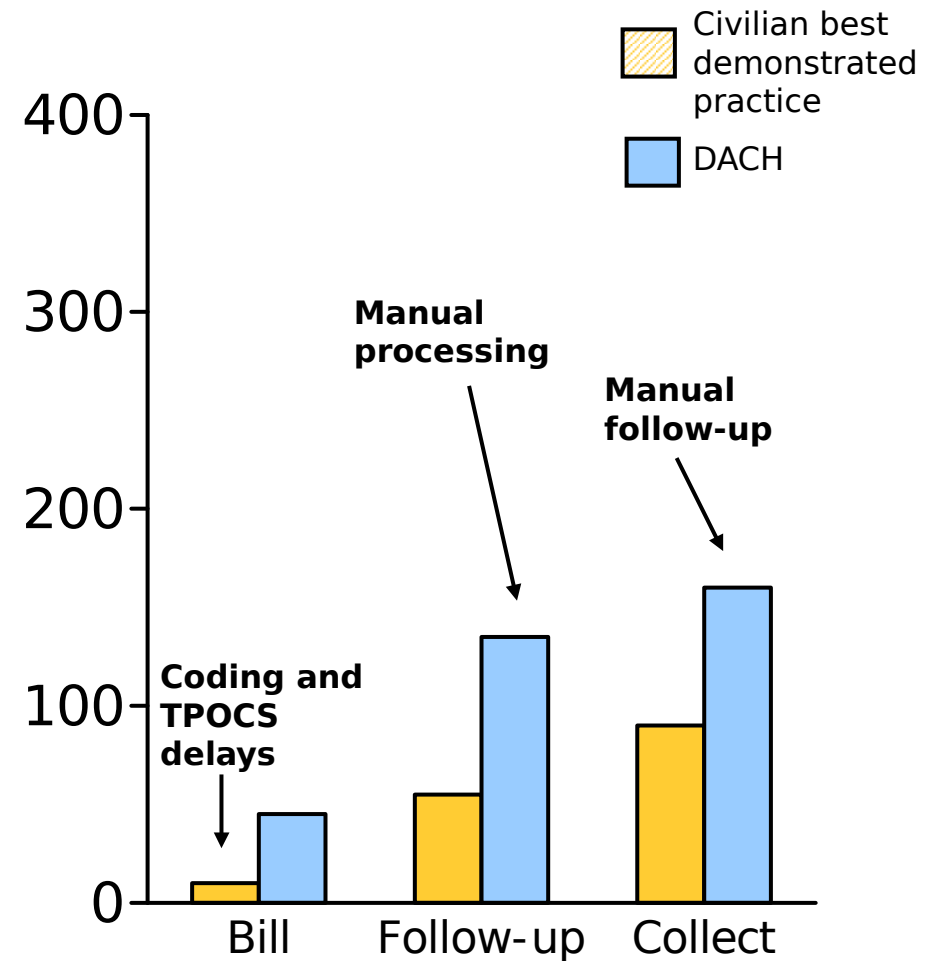
# The current manual system takes longer than the civilian benchmarks to collect claims

**DRAFT**

Cumulative days from  
inpatient admission



Cumulative days from  
outpatient visit



Note: TPOCS= Third Party Outpatient Collection System.

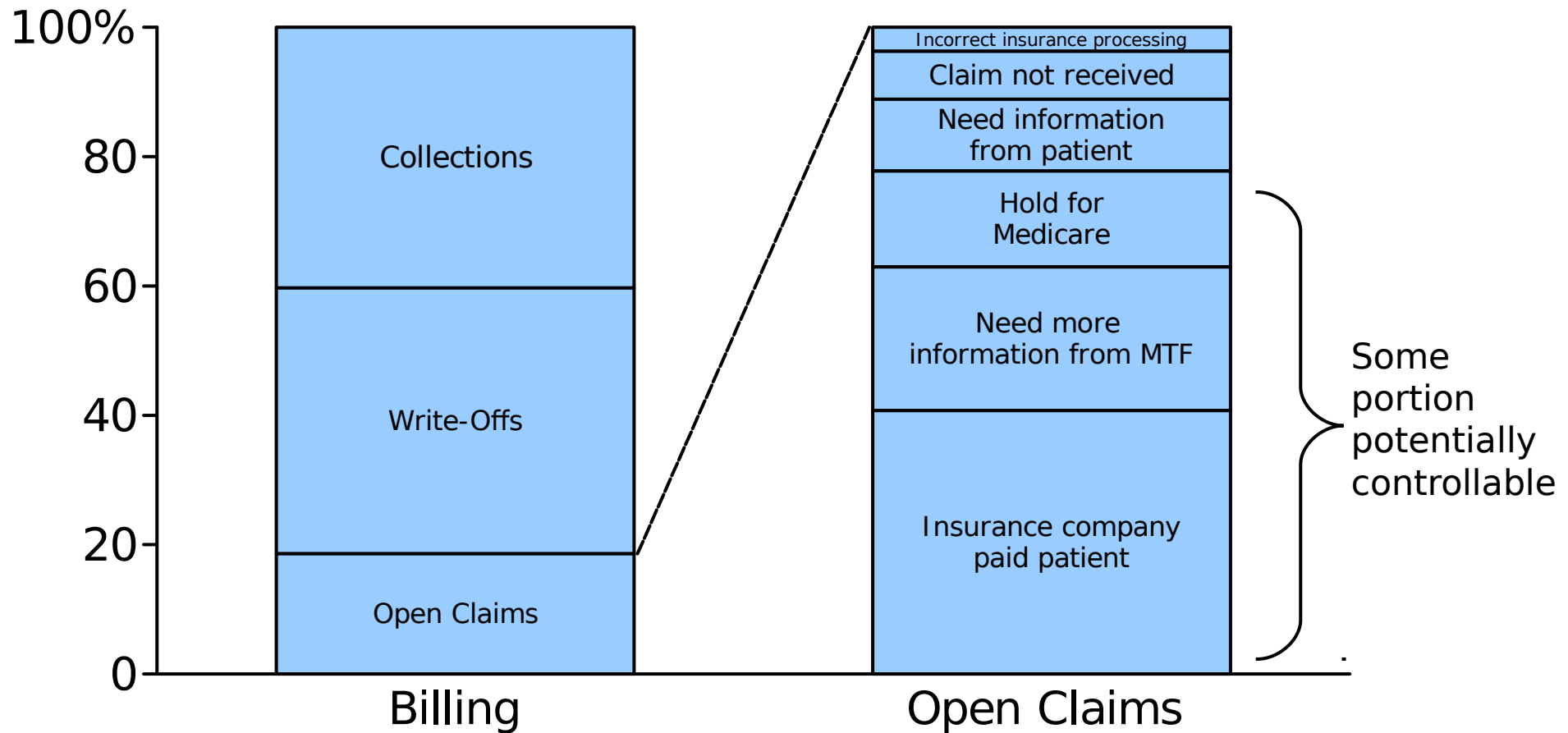
Source: Form 2570 Reports; MTF Interviews; DACH Denial Study; Civilian Interviews; Aspen; HFMA

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# There may be an opportunity to prevent some common causes of open claims from occurring in

**DRAFT**

Percent of outpatient



Note: Out of 22 inpatient claims sampled, no explanation of benefit forms were received from the insurance company.

Source: DACH Denial Study (N=22 Inpatient Claims, N=27 Outpatient Claims); Form 2570 Reports

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**DOD 1**

# DeWitt should consider adopting the following billing practices to reduce open claims

**DRAFT**

Speed time to process open claims

Minimize outstanding open claims

## Approach:

- **Decrease time to follow-up** on open claims by speaking with leading insurers about multiple claims at one time
- **Include open claims as part of denial tracking** to prevent future similar open claims from arising in the first place

## Requirements:

- **Focus** on largest insurers such as BC/BS CareFirst, Aetna, and Mail Handlers
- Use **existing accounts receivable reports** to locate largest claims to dispute with individual insurers
  - Inpatient and outpatient "A/R" reports
- Consider referring claims >180 days to **legal department**
- **Track open claims** as part of denial management program
- Adopt **change program** for leading causes of open claims
  - Provide feedback to other areas of facility as needed

# Implementation will require the use of metrics

**DRAFT**

## Speed time to process open claims

## Minimize outstanding open claims

### Potential upside:

- **Reduce open claims** as a percentage of billings by speeding time to follow-up and resolution

- **Reduce open claims** as a percentage of billing

### Implementation barriers/risks:

- Receiving timely response from insurance companies
  - Insurance companies do not always send a timely explanation of benefits (EOB)
- Cooperation from the legal department

- Will require additional time for claims assistant to fill out denial report for open claims
- Informal nature of tracking may not uncover all avoidable open claims

### Metrics:

- CY open claims as a percentage of billing
- Days receivable =  $\frac{\text{CY open claims}}{(\text{CY billings} - \text{CY write-offs})/\text{days in period}}$

- Top 3 reasons for open claims by leading insurer (informal denial management tracking)

Note: CY = current year

# Implementation Plan

**DRAFT**

<u>Initiative</u>	<b>Launch period</b>				<u>Potential process leader*</u>
	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	
1. Reduce time to process <b>ancillary claims</b>					Third party collections (Aretha Woods)
2. Improve <b>documentation</b> to enable higher <b>billing/claim</b>					Family practice clinic (Dr. Aaronson)
3. <b>Speed time to follow-up on open claims</b>					Third Party Collections (Aretha Woods)
4. Adopt <b>denial management</b> program (write-offs and open claims)					Third Party Collections (Aretha Woods)
5. Provide <b>denial information to coders and clinics</b>					Coding Department (Robin Hughes-Harris)
6. Roll-out new <b>OHI clerk training</b> program					Patient Administration (CPT Williams)
7. Launch <b>OHI days and/or phone and mail drives</b>					Patient Administration (CPT Williams)

\*Overall process leaders to include Captain Robin Williams (DeWitt) and Captain Eric Poulsen (WRAMC); process leaders assigned to initiatives are already designing implementation plans.

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# Third party billing next steps

**DRAFT**

- Roll-out DeWitt pilot initiatives
  - Assign initiatives to process champions, establish metrics, create incentives, and monitor progress on a monthly or quarterly basis
  - Refine initiatives as needed to reflect practical realities of implementation
- Conduct detailed diagnostic at the other three bedded NCA MTFs
- Establish pilot initiatives at other MTFs with appropriate adjustments for MTF-specific learnings

**DOD 1**

# Three initiatives could generate an incremental \$50-55M for the NCA

**DRAFT**

	Third party billing	Contracting	Pharmacy
Situation today:	<ul style="list-style-type: none"> <li>NCA collected \$18M from other health insurance in FY02 and is projected to collect \$16M in FY03</li> </ul>	<ul style="list-style-type: none"> <li>The bedded NCA MTFs are projected to spend \$69M on non-medical contracts in FY03</li> </ul>	<ul style="list-style-type: none"> <li>Prescriptions filled at retail cost the DoD more than scripts filled in MTFs, and retail volume is growing fastest in the NCA</li> </ul>
Opportunity:	<ul style="list-style-type: none"> <li>Increase collections, primarily by identifying more OHI* patients along with improving coding, documentation, and billing practices</li> </ul>	<ul style="list-style-type: none"> <li>"Best price" and volume savings can be generated through tri-service contract consolidation</li> </ul>	<ul style="list-style-type: none"> <li>Cost savings can be achieved by recapturing retail scripts to the MTFs or by achieving MHS pricing for retail scripts</li> </ul>
Potential benefits:	<ul style="list-style-type: none"> <li>Incremental collections of ~\$34M for the four NCA bedded MTFs</li> </ul>	<ul style="list-style-type: none"> <li>Full potential benefits across all categories of \$7M to \$10M annually</li> <li>Short to medium-term opportunity of \$4M to \$5.5M** annually</li> </ul>	<ul style="list-style-type: none"> <li>Full potential savings of \$13M to \$17M annually for the NCA by achieving MHS pricing for retail scripts or recapturing scripts</li> </ul>

\*Other health insurance

\*\* \$5.5M excludes NNMC from facilities maintenance consolidation analysis.

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# Contracting summary

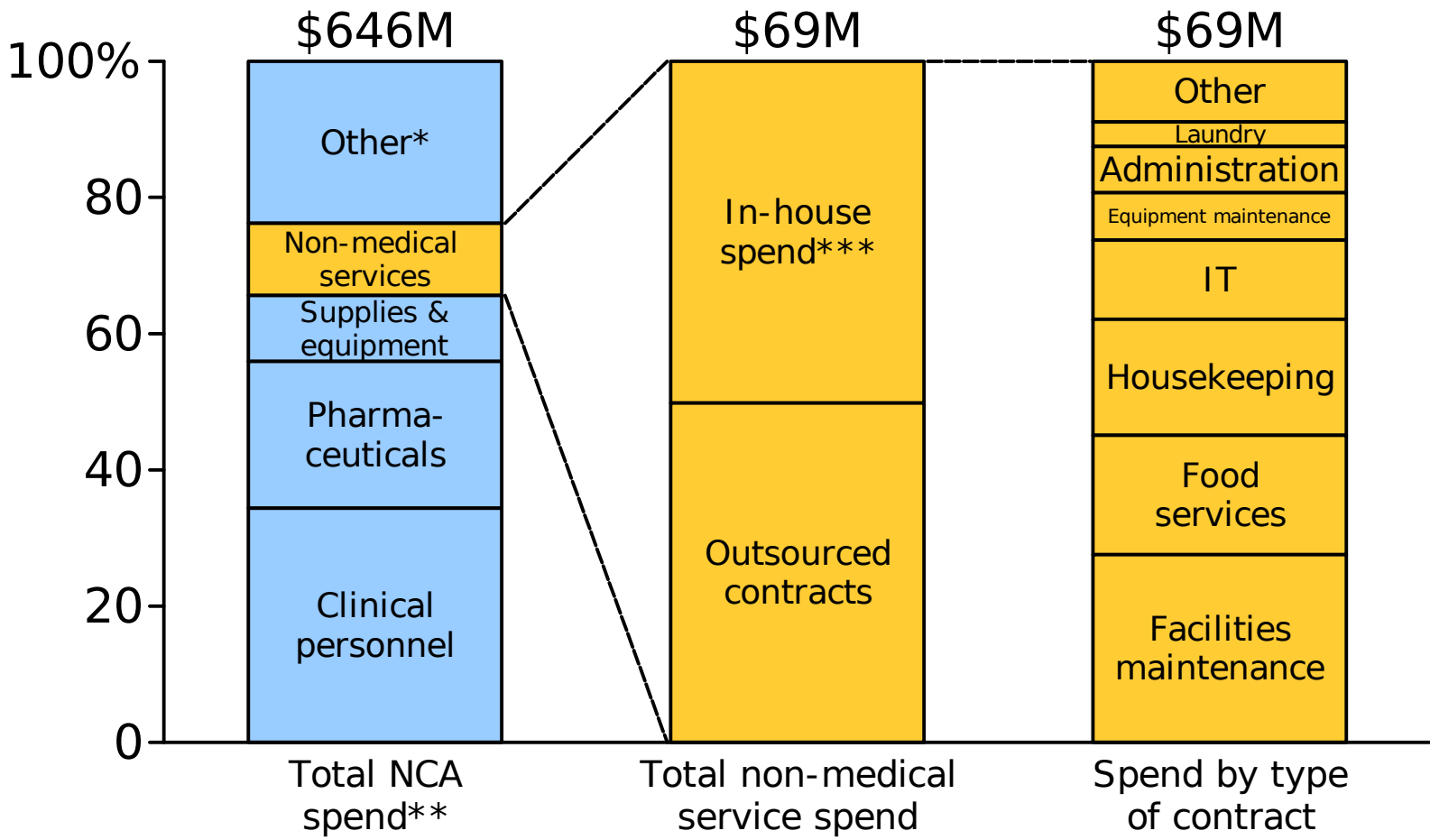
**DRAFT**

- The four bedded NCA MTFs are projected to spend \$69M on non-medical services in FY03
- Short to medium-term opportunities exist to reduce spend in housekeeping, laundry and facilities maintenance, which account for \$33M of this spend
- Spend in these three categories could potentially be reduced by \$4M to \$5.5M annually, but could take at least 4 months to implement
- Several issues must be addressed to achieve these savings
  - Tri-service coordination will be required
  - WRAMC A76 housekeeping study must be completed
  - “Bundling” tests need to be passed and SBA approval must be obtained in order to successfully consolidate SBA contracts
  - NIB/NISH contracts appear prohibitively restrictive to renegotiate or terminate before contract expires, and generally have lengths of more than 1 year

# The bedded NCA facilities are projected to spend \$69M on non-medical services in FY03

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Percent of FY2003E spend

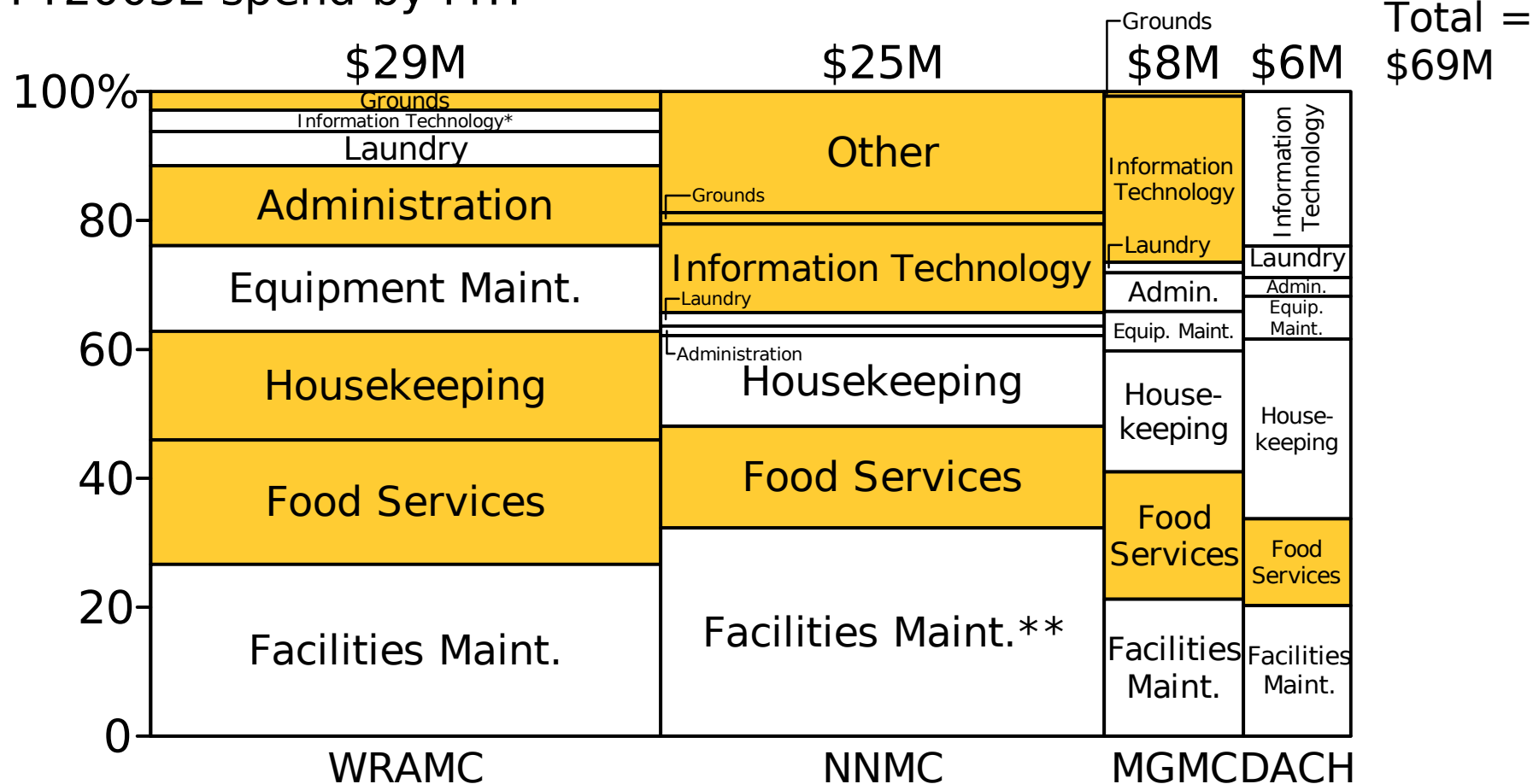


\* Other includes occupational health, environmental, education and miscellaneous.  
 \*\* NCA spend breakout includes data from WRAMC, NNMCM, MGMC and DACH.  
 \*\*\* In-house spend represents pro-rated spend for activities currently partially or fully performed in-house.  
 Source: MTF Budgetary Reports; MTF Contract Data; MTF Resource Manager Interviews; MTF Logistics Personnel Interviews.

# Facilities maintenance, food services and housekeeping are the three largest spend

**DRAFT**

FY2003E spend by MTF



>50% in-house  
 >50% outsourced

\*Excludes phone services and other categories where data was not available.

\*\*NNMC facilities maintenance handled by Navy Public Works Corporation.

Source: MTF Budgetary Reports; MTF Contract Data; MTF Resource Manager Interviews; MTF Logistics Personnel Interviews

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# Most outsourced contract categories are served by different providers

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Contract category	WRAMC	NNMC	MGMC	DACH	All-inclusive 2003E spend*
• <b>Housekeeping</b>	• In-house	• Able Services	• Harry Stroh, The Chimes	• The Chimes	• \$11.7M
• <b>Facilities maintenance</b>	• J&J Maintenance	• NOMOS Corp, Nucletron Corp, Philips Electricity	• BMAR (Various contracts), J&J Maintenance	• DynCorp	• \$19.0M
• <b>Laundry</b>	• Contractor (name N/A)	• NUTECH Laundry and Textiles	• Commercial Laundry	• RGI	• \$2.5M
• <b>Administration (includes coding, transcription, etc.)</b>	• Fed Source and various outside providers	• Fed Source and various outside providers	• Standard Technology • Oliver Cobb	• Various outside providers	• \$4.7M
• <b>Information technology</b>	• DTSW, GSA, Ingenium, Johnson Ctl.	• Skytel, Sprint, Nextirone Fed	• In-house and various contracts	• CES, Xerox	• \$8.0M
• <b>Food services</b>	• In-house	• Partially in-house • EECO, MG Ind.	• In-house	• In-house	• \$12.1M
• <b>Medical equipment maintenance</b>	• GE, Phillips, others	• Various	• Various	• GE, Phillips, others	• \$4.8M
• <b>Grounds</b>	• In-house	• In-house	• In-house	• In-house	• \$1.4M

\*Excludes other category of \$4.8M

Source: MTF Budgetary Reports; MTF Contract Data; MTF Resource Manager Interviews;

MTF Logistics Personnel Interviews

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# Contract category components

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## **Contract Category**

- Housekeeping
- Facilities maintenance
- Laundry
- Administration
- Information technology
- Food services
- Equipment maintenance

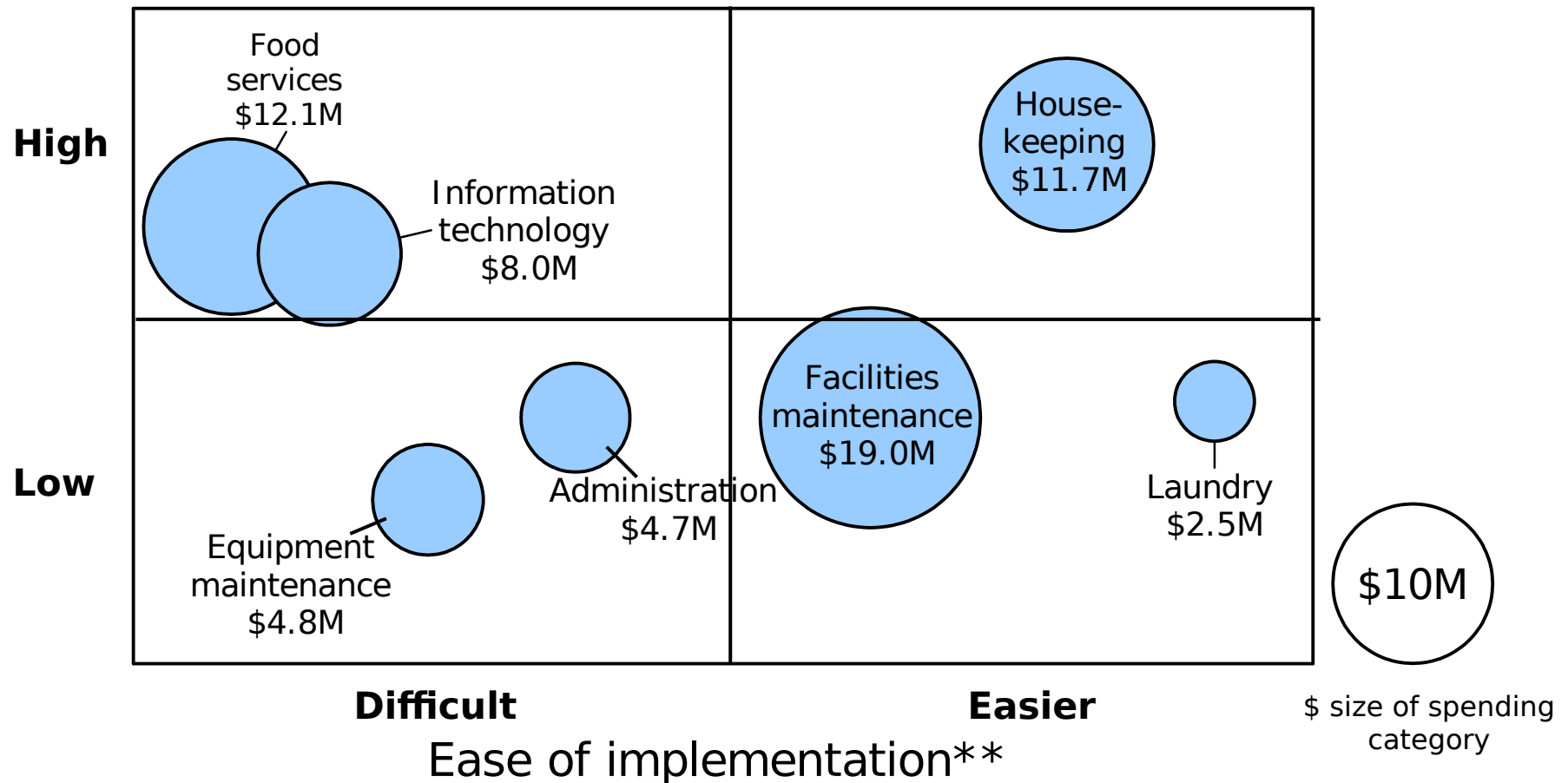
## **Description**

- Includes medical and non-medical janitorial services for certain operating and administrative square footage
- Includes preventative maintenance, scheduled maintenance, engineers, HVAC services, steam and electrical services
- Includes general hospital laundry services
- Primarily includes transcription and coder services
- Fragmented contracts. Includes phone systems, computers, IT help desk, video/telecom services, pager services, copying services
- Currently done in-house at all MTFs. Includes personnel, supplies and equipment expenses related to food services
- Includes bio-medical equipment maintenance contracts, usually directly with the OEM equipment provider

# Opportunities have been prioritized according to relative savings potential and ease of implementation

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Relative savings potential\*



\* Based on MTF personnel interviews and prior Bain experience

\*\* Based on estimated fragmentation of spend, legislative and inter-service integration challenges, and current provider status (in-house vs. outsourced).

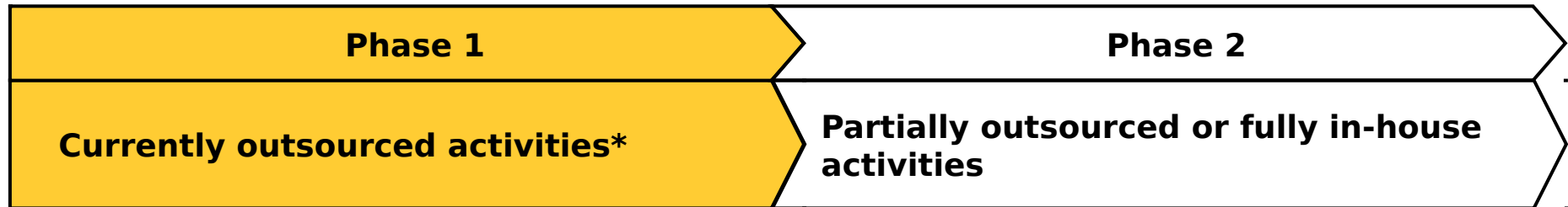
Source: MTF Budgetary Reports; MTF Contract Data; MTF Resource Manager Interviews; MTF Logistics Personnel Interviews

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# Implementation should be phased

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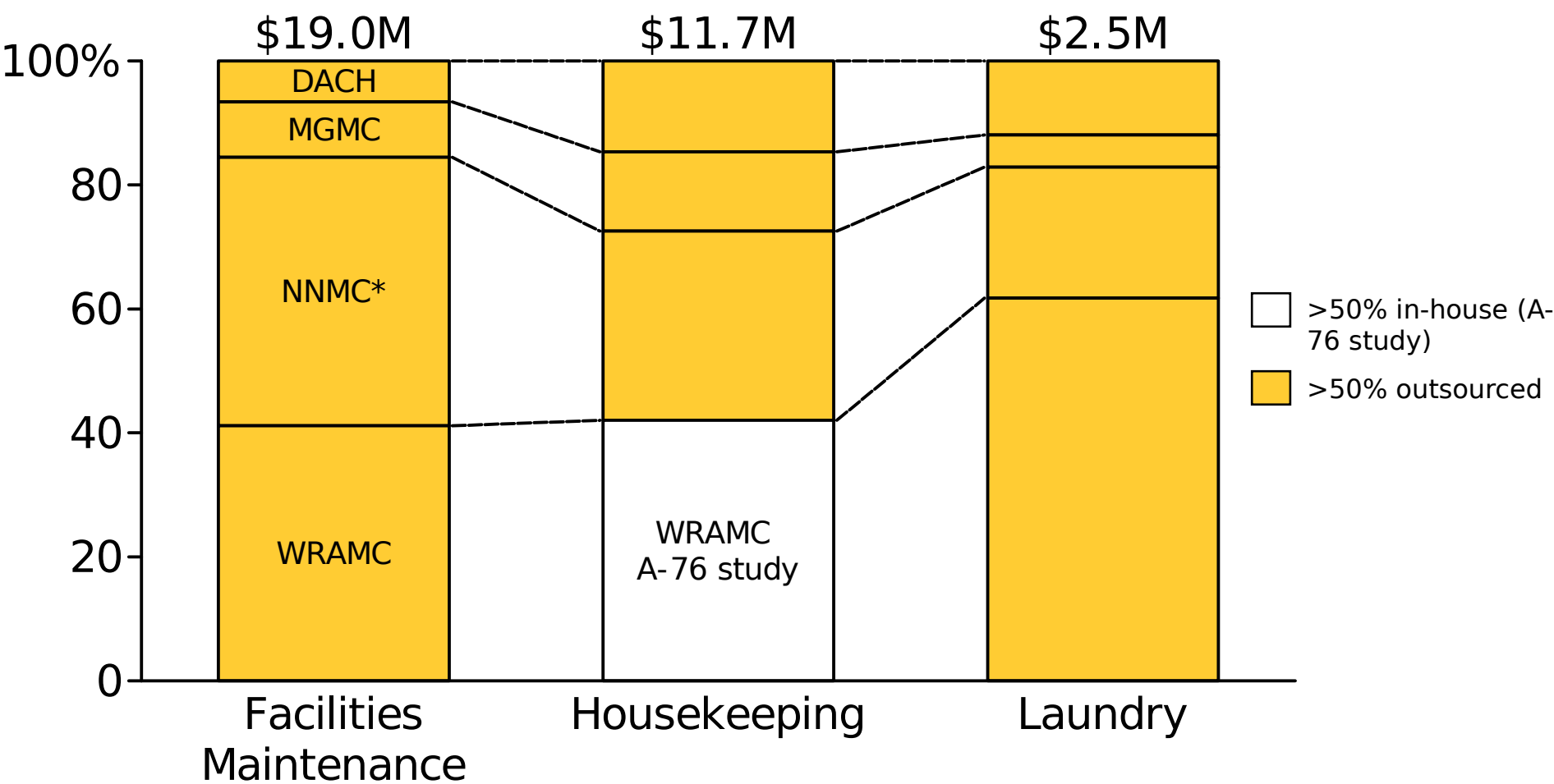
- Identify full set of outsourced activities common to all MTFs
  - Prioritize opportunities
    - Magnitude of savings opportunity based on unit cost comparisons
    - Ease of implementation
  - Consolidate contracts across MTFs
    - Form tri-service committee to serve as a single contract recommendation vehicle
    - Submit RFPs to providers
    - Select provider
- Identify activities currently either partially outsourced by the MTFs or provided in-house by certain MTFs
  - Calculate allocated costs of in-house activities and compare to outsourced option (A76 study)
  - Outsource activities or bring in-house based on superior economics

\*Activities either fully outsourced by at least 2 MTFs or greater than 50% of spending outsourced by all four MTFs.

Facilities maintenance, housekeeping and laundry are generally already outsourced and should be targeted first

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Percent of FY2003E spend

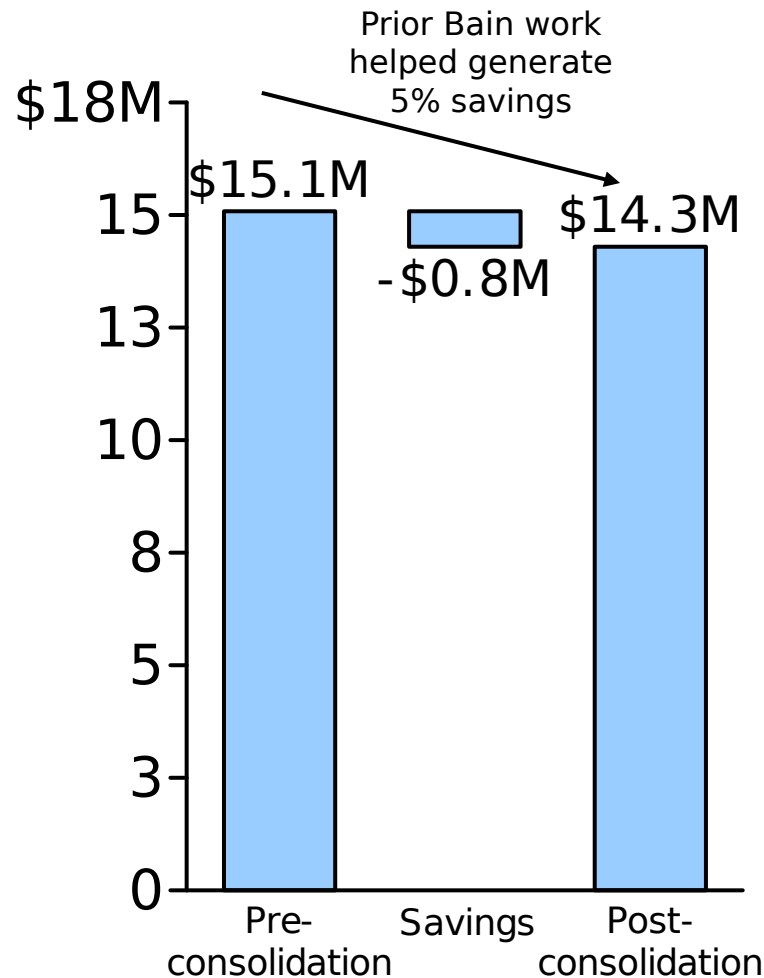




# Prior Bain work in hospitals suggests that consolidating facilities maintenance contracts could generate administrative savings on the order of 5%

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Prior Bain client facilities maintenance spend (\$M)

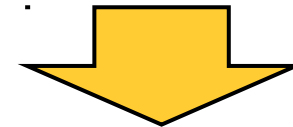


## Contract description

- Includes preventative maintenance, scheduled maintenance, engineers, HVAC services, steam and electrical services

## Savings driven by

- Pass-through of reduced provider administrative costs (less paperwork)
- Reduced total management fees under one contract
- Potential volume discount



**Consolidating facilities maintenance contracts across the four bedded facilities could generate \$700K per year in full potential savings assuming a 5% reduction of the \$13.5M in current spend that excludes NNMC\***

\*NNMC facilities maintenance contract is handled by Public Works Corporation.

Source: Prior Bain Work; MTF Budgetary Reports; MTF Contract Data; MTF Resource Manager Interviews; MTF Logistics Personnel Interviews

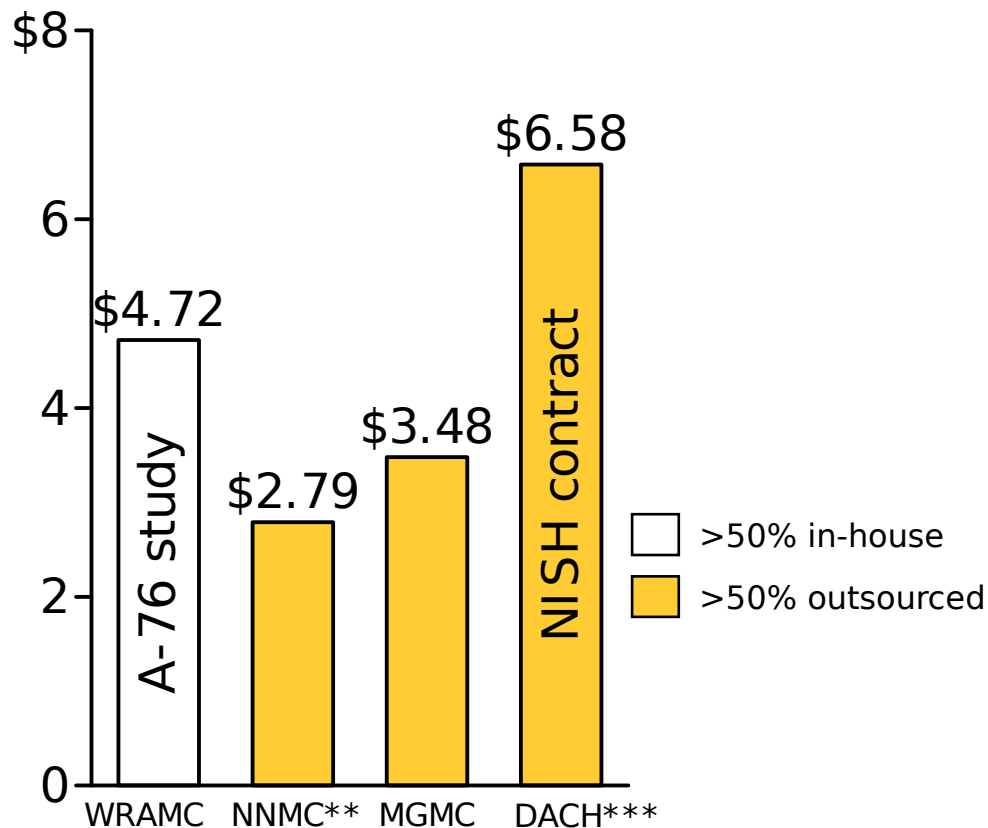
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# Housekeeping rates vary by facility

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\$/cleanable square foot\*  
(FY2003E)



## Contract description

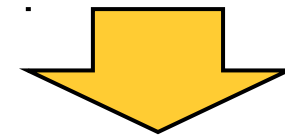
- Includes aseptic cleaning for certain operating and non-operating MTF square footage
- WRAMC currently providing housekeeping in-house; A76 study underway
- DACH NISH contract will be restricted from near-term consolidation activities

## Lowest price savings

- Assumes WRAMC and MGMC contracts converge to lowest unit cost (\$2.79), generating a \$3.3M annual savings opportunity\*\*\*\*

## Additional volume discount

- \$800K incremental annual savings opportunity assuming an incremental 10% volume savings off the lowest unit cost



**\$3.3M to \$4.1M annual savings  
full potential opportunity**

\*\$/cleanable square foot represents a weighted average of different rates based on the type of cleaning performed.

\*\*NNMC cleanable square footage estimated by applying MGMC ratio of cleanable to total square footage to NNMC total square footage.

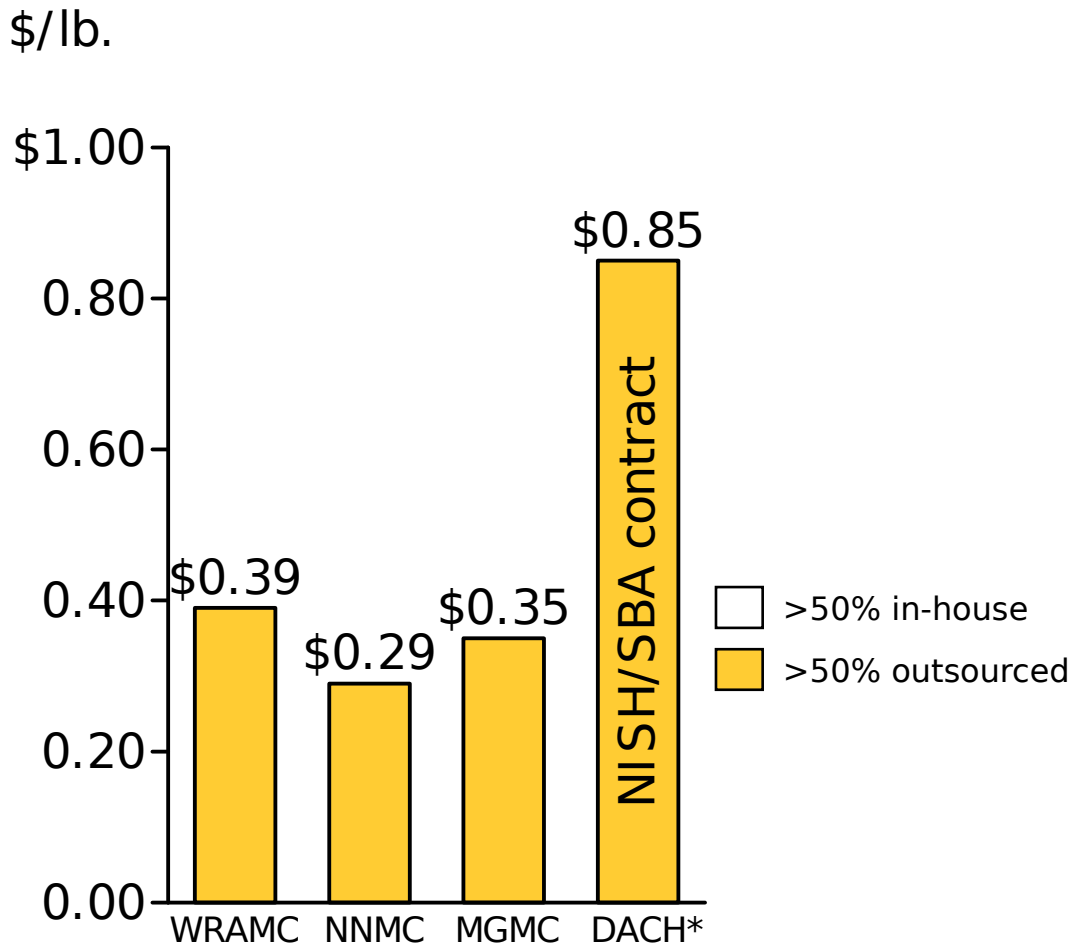
\*\*\*DACH currently operating under a NIB/NISH contract.

\*\*\*\*\$2M in savings from WRAMC; \$1M from DACH; \$300K from MGMC.

Source: MTF Budgetary Reports; MTF Contract Data; MTF Resource Manager Interviews; MTF Logistics Personnel Interviews

# Laundry rates vary by facility and are lowest at NNMC

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\*DACH currently paying on a \$/"per piece" basis (vs. \$/lb); pieces converted to pounds by DACH logistics personnel.

\*\*\$400K in savings from WRAMC; \$200K from DACH; \$20K from MGMC.

Source: MTF Budgetary Reports; MTF Contract Data; MTF Resource Manager Interviews; MTF Logistics Personnel Interviews

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## **Contract description**

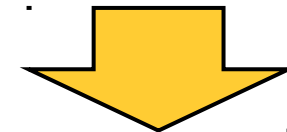
- Includes general hospital laundry services
- Small business issues may present obstacles to consolidation (e.g., DACH contract)
- DACH NISH contract up for re-negotiation in 2003

## **Lowest price savings**

- Assumes all contracts converge to lowest unit cost (\$0.29), generating \$600K\*\* annual savings opportunity

## **Additional volume discount**

- \$200K incremental annual savings opportunity assuming 10% off the lowest unit cost



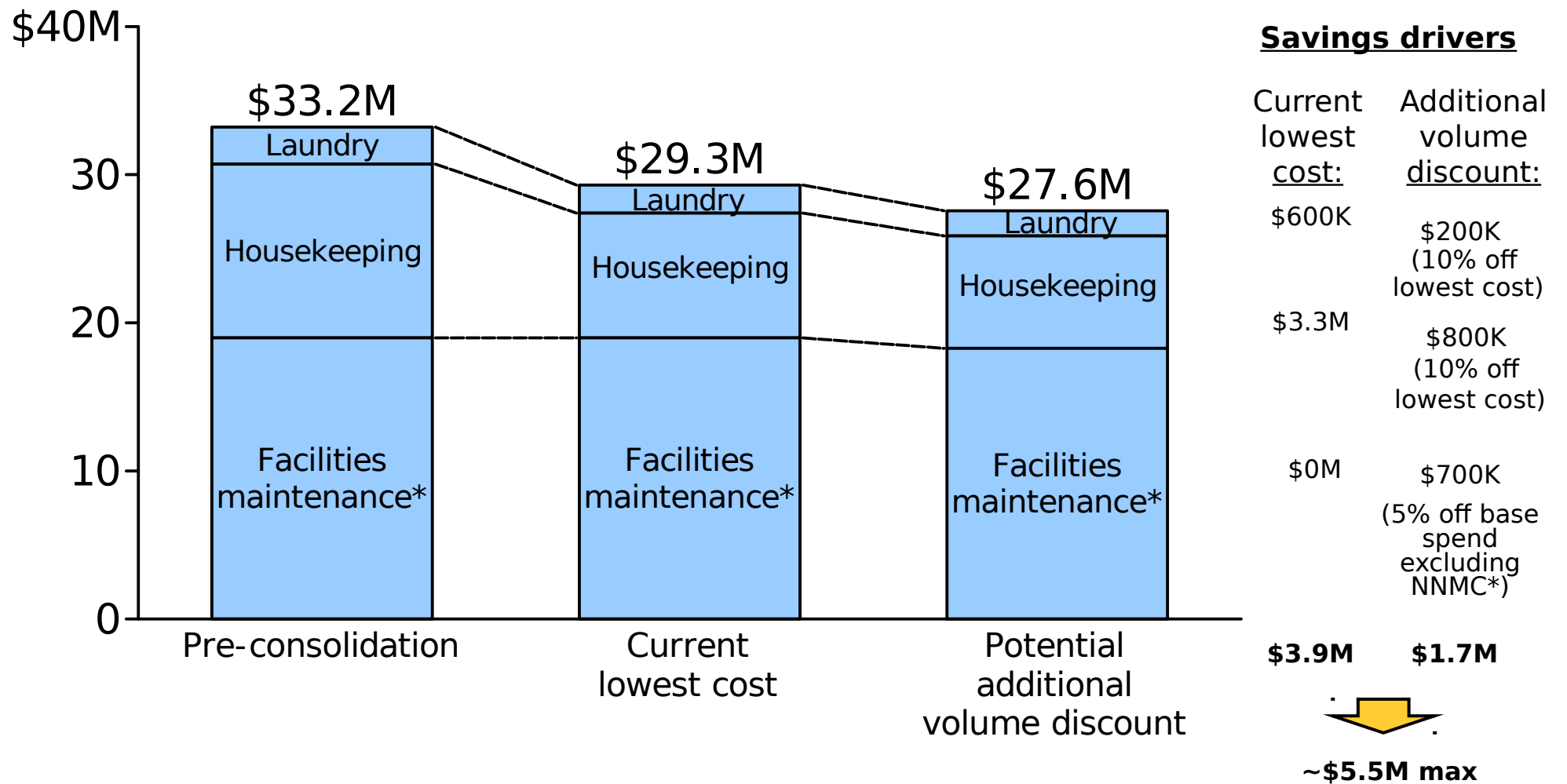
**\$600K to \$800K annual savings opportunity**

**DOD 1**

# These initiatives could potentially generate savings of more than \$3.9M per year

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Spend at WRAMC, NNMCM, MGMC, DACH (FY2003E)



# A number of implementation issues must be considered to achieve these savings

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Contract approval:

- Request for proposal and contract approval process realistically takes a minimum of 120 days

Congressional approval for study:

- The services (Army, Navy and Air Force) must obtain Congressional approval and execute A76 studies to assess “make” versus “buy” economics for services offered in-house if greater than 20 civilian workers are involved in the outsourcing activity

Small business/ other requirements:

- Protected by the Small Business Regulatory Enforcement Fairness Act
- Contracts can be consolidated (“bundled”) if the SBA approves the request after a specific set of conditions is met (outlined later)

NIB/NISH

requirements

- Strictly protected by the Javitz-Wagner-O’Day Act
- Contracts highly unlikely to be approved for consolidation before contract expires

# NCA non-medical contract consolidation – housekeeping pilot executive summary

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- Potential savings:
- **\$3.3M annually** if WRAMC, MGMC and DACH move to “**best**” **unit cost**
  - Potential **additional \$800K annually** if **10% discount** is achieved through **volume consolidation**
- Implementation challenges:
- Must navigate **legislative and procedural roadblocks**
    - Length of standard contracting process
    - NIB/NISH contract lengths (multiple years vs. one-year for other contracts)
    - Small Business Administration bundling tests
    - A76 studies
- Tri-service coordination required:
- Key tri-service committee **activities** will include selecting categories for review, drafting statements of work, evaluating bids and recommending award decisions
  - Committee will recommend contract **award decisions**, subject to any legislative restrictions, to a senior contracting organization
  - Market research and **contract execution** will be handled by a contracting officer (to be chosen)
  - Proposed tri-service committee will include **9 members**
    - 2 members from each bedded MTF (logistics, resource management) and 1 contracting officer consultant
- Roll-out:
- **Tri-service committee** to be **formed before or during FY04Q1**
  - **Statement of work process for housekeeping** and potential opportunities to reduce time to implementation will be addressed at first meeting
  - **Savings allocation metrics** across the MTFs will also be agreed upon

# The are several challenges to overcome

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Challenge	Proposed response
<ul style="list-style-type: none"><li>• NIB/NISH rules:</li></ul>	<ul style="list-style-type: none"><li>• Might consider excluding DACH from current housekeeping pilot and revisit when contract expires in 2006</li><li>• If Committee would like to include DACH in current housekeeping pilot, NISH committee must be formally petitioned to terminate contract<ul style="list-style-type: none"><li>- Economic justification must be provided</li><li>- NISH Committee has discretion to accept or reject petition</li><li>- Early NISH terminations are considered “extremely rare”</li></ul></li></ul>
<ul style="list-style-type: none"><li>• Small Business Administration rules:</li></ul>	<ul style="list-style-type: none"><li>• If Committee would like to include DACH in current housekeeping pilot, SBA bundling analysis must be performed (outlined next page) and submitted to SBA for approval<ul style="list-style-type: none"><li>- To increase likelihood of SBA cooperation, indicate intention to include small businesses as subcontractors under large contract umbrella, if applicable</li></ul></li></ul>
<ul style="list-style-type: none"><li>• Length of contracting process:</li></ul>	<ul style="list-style-type: none"><li>• Assign fully-dedicated resources to expedite statements of work, which are generally observed as the process bottlenecks</li></ul>
<ul style="list-style-type: none"><li>• A76 studies</li></ul>	<ul style="list-style-type: none"><li>• Dedicate appropriate resources to facilitate timely completion of WRAMC housekeeping A76 study</li></ul>

# MTFs can pursue contract re-negotiation individually, but a tri-service consolidation strategy

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## Individual MTF strategy

## Tri-service strategy

### Description:

- MTFs share unit cost data but attempt to renegotiate down to the “best price level” separately
- Tri-service committee formed to consolidate contracts
- MTFs negotiate and select vendors as a single entity

### Strategy pros:

- Relative speed and ease - little tri-service coordination required
- Bulk of expected savings driven by “best price” vs. volume discount in housekeeping
- Increased NCA bargaining power in negotiating larger contracts
- Communication, analysis and best practices shared across MTFs and services
- Best price and volume discounts likely

### Strategy cons:

- Disparate economics may still result across MTFs
- Volume consolidation savings will likely not be achieved
- Tri-service communication and sharing of findings may not be optimal
- Process could be slowed by legislative hurdles
- Cooperation of each service and MTF will require some investment on the part of each facility on an on-going basis



# A tri-service committee should be formed to facilitate full contract consolidation

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## Contract planning phase

## Contract execution phase

Responsible group: • Tri-service committee

• Contracting officer organization

Description: • Tri-service committee will choose contracts to consolidate and will **recommend** contract awards to a senior contracting organization

• Contracting officer will **execute contracts**, oversee disbursement of funds and ensure legal requirements are met

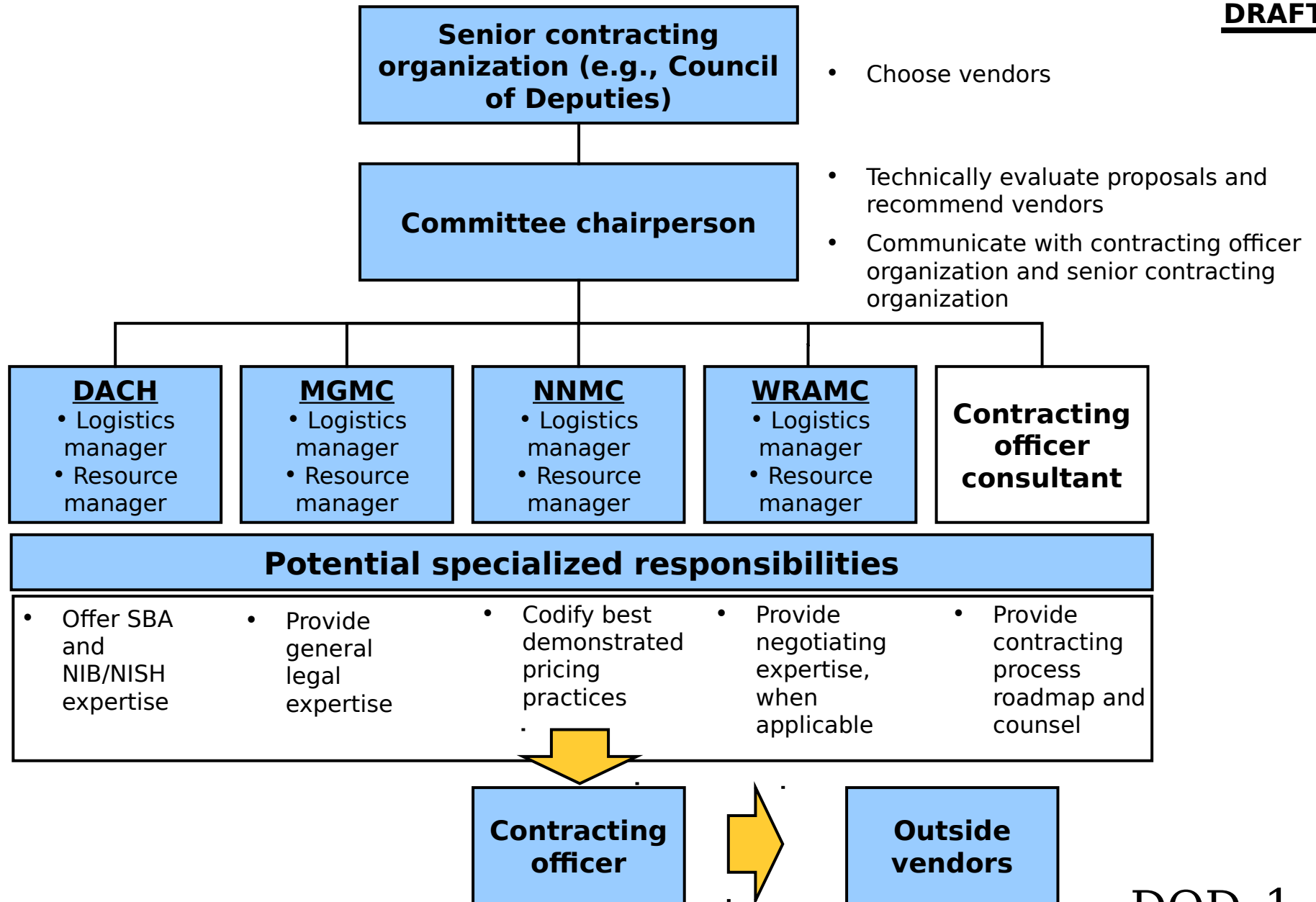
Responsibilities: • Select contract category to evaluate  
• Choose contracting officer  
• Prepare consolidated statements of work to submit to contract officer  
• Technically evaluate proposals once received  
• Make contract reward recommendations

• Enter into, administer and terminate contracts  
• Bind government to the extent delegated in the contract  
• Provide direction under the terms and conditions of the contract

Expertise required: • MTF service needs/requirements  
• General legal  
• Finance  
• Negotiations, if open-ended bidding process chosen

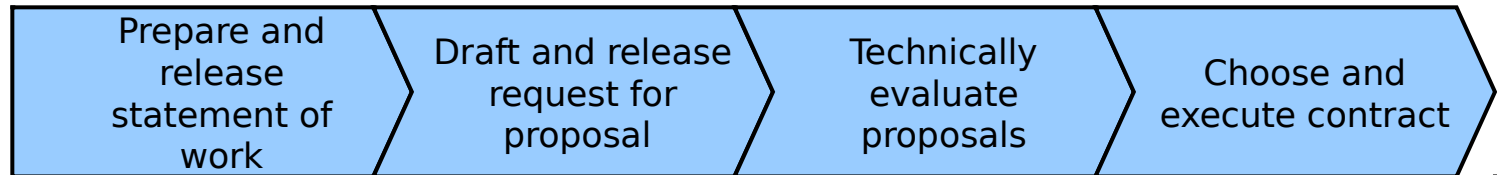
• Contract execution process  
• Small business, NIB/NISH legal specialization

# Proposed membership and structure for service committee

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# Contracting process activities will likely take minimum of 4 months

a

**DRAFT****Ownership:**

- | Prepare and release statement of work                                                              | Draft and release request for proposal                                             | Technically evaluate proposals                                                                    | Choose and execute contract                                                                                                        |
|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• MTF logistics departments/ Tri-service committee</li></ul> | <ul style="list-style-type: none"><li>• Contracting officer organization</li></ul> | <ul style="list-style-type: none"><li>• MTF personnel/ contracting officer organization</li></ul> | <ul style="list-style-type: none"><li>• Contracting organization/ Tri-service committee/ Senior contracting organization</li></ul> |

**Estimated timeline:**

- | Prepare and release statement of work                         | Draft and release request for proposal                       | Technically evaluate proposals                               | Choose and execute contract                                 |
|---------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• 45-180 days</li></ul> | <ul style="list-style-type: none"><li>• 45-60 days</li></ul> | <ul style="list-style-type: none"><li>• 30-90 days</li></ul> | <ul style="list-style-type: none"><li>• 0-30 days</li></ul> |

**Tasks:**

- | Prepare and release statement of work                                                                                                                                                                  | Draft and release request for proposal                                                                                                                                                                                                                      | Technically evaluate proposals                                                                                                                       | Choose and execute contract                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Draft statement of work</li><li>• Estimate contract cost and obtain pre-approval for funds</li><li>• Submit statement of work to contracting officer</li></ul> | <ul style="list-style-type: none"><li>• Draft request for proposal from statement of work</li><li>• Perform market research on pricing and competition</li><li>• Determine bidding method</li><li>• Release request for proposal to public domain</li></ul> | <ul style="list-style-type: none"><li>• Form technical evaluation board from among key MTF personnel</li><li>• Evaluate contract proposals</li></ul> | <ul style="list-style-type: none"><li>• Tri-service committee recommends contract award</li><li>• Senior contracting organization awards contract</li><li>• Contracting office organization executes and administers contract</li></ul> |

# Contracting next steps

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- Establish tri-service committee
- Prepare statement of work for a consolidated housekeeping contract covering all or a portion of the bedded MTFs in the NCA
- Choose contracting organization and hand-off statement of work to contracting officer organization
- Replicate tri-service contract consolidation process for other categories

# Three initiatives could generate an incremental \$50-55M for the NCA

**DRAFT**

	Third party billing	Contracting	Pharmacy
Situation today:	<ul style="list-style-type: none"> <li>NCA collected \$18M from other health insurance in FY02 and is projected to collect \$16M in FY03</li> </ul>	<ul style="list-style-type: none"> <li>The bedded NCA MTFs are projected to spend \$69M on non-medical contracts in FY03</li> </ul>	<ul style="list-style-type: none"> <li>Prescriptions filled at retail cost the DoD more than scripts filled in MTFs, and retail volume is growing fastest in the NCA</li> </ul>
Opportunity:	<ul style="list-style-type: none"> <li>Increase collections, primarily by identifying more OHI* patients along with improving coding, documentation, and billing practices</li> </ul>	<ul style="list-style-type: none"> <li>"Best price" and volume savings can be generated through tri-service contract consolidation</li> </ul>	<ul style="list-style-type: none"> <li>Cost savings can be achieved by recapturing retail scripts to the MTFs or by achieving MHS pricing for retail scripts</li> </ul>
Potential benefits:	<ul style="list-style-type: none"> <li>Incremental collections of ~\$34M for the four NCA bedded MTFs</li> </ul>	<ul style="list-style-type: none"> <li>Full potential benefits across all categories of \$7M to \$10M annually</li> <li>Short to medium-term opportunity of \$4M to \$5.5M** annually</li> </ul>	<ul style="list-style-type: none"> <li>Full potential savings of \$13M to \$17M annually for the NCA by achieving MHS pricing for retail scripts or recapturing scripts</li> </ul>

\*Other health insurance

\*\* \$5.5M excludes NNMC from facilities maintenance consolidation analysis.

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**DOD 1**

# Pharmacy summary

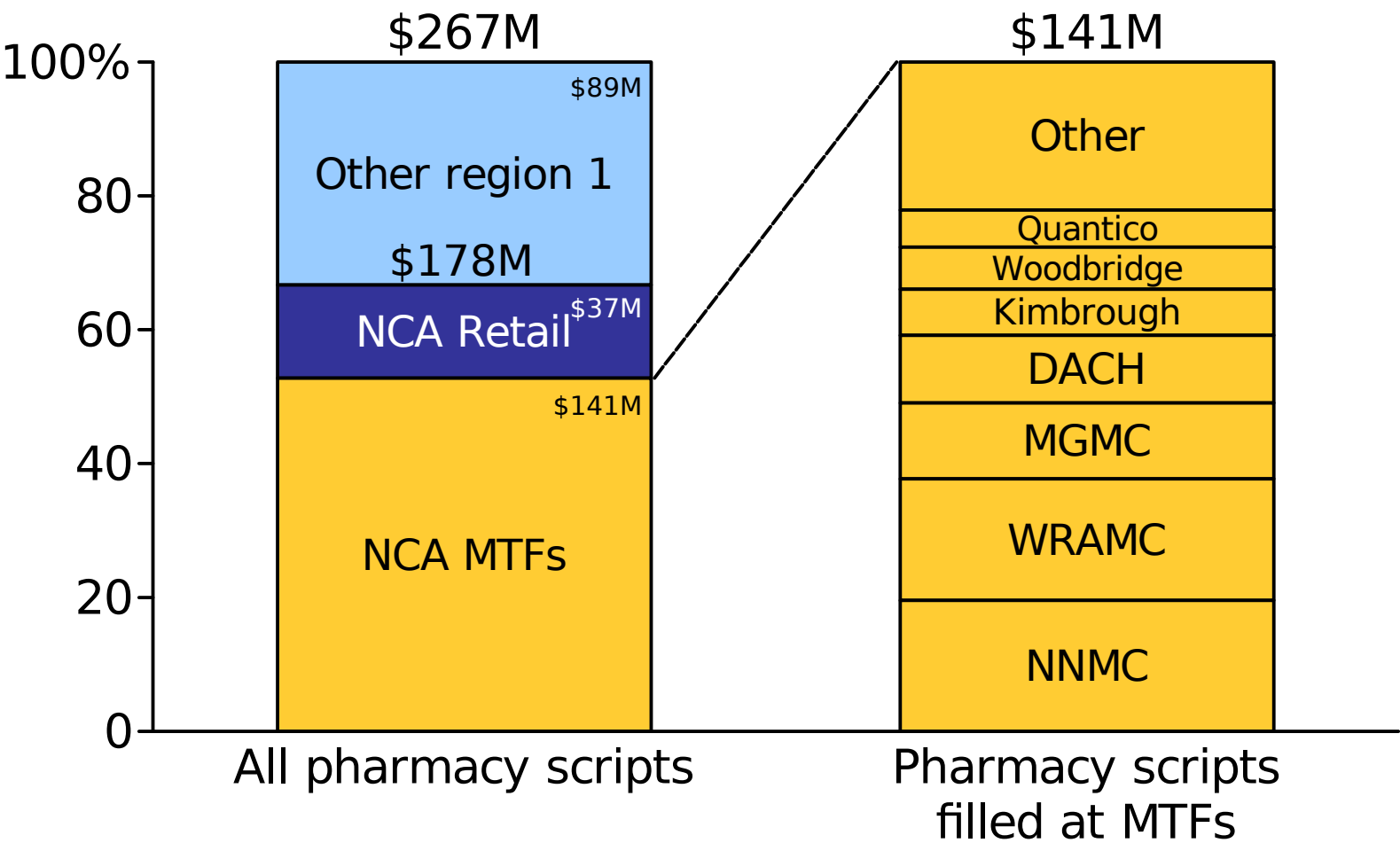
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- Pharmacy drug expenses for the NCA are projected to be \$178M in FY03
  - Approximately \$37M (21%) of pharmacy spend is in the retail channel
  - Retail spend has increased its share of total pharmacy costs, particularly since 2001, due to extended coverage to 65+ beneficiaries
  
- Scripts filled in the retail channel are higher cost than those filled at MTFs
  - MTF savings are driven by lower drug costs, which more than compensate for higher MTF dispensing fees
  
- Recapturing retail scripts or transferring MHS drug pricing to retail scripts could yield \$13M to \$17M in lower drug costs in the NCA
  - A TMA Pharmacy RFP process is in place to potentially capture these savings

# The pharmacy expense bill for the NCA is projected to be \$178M in FY03

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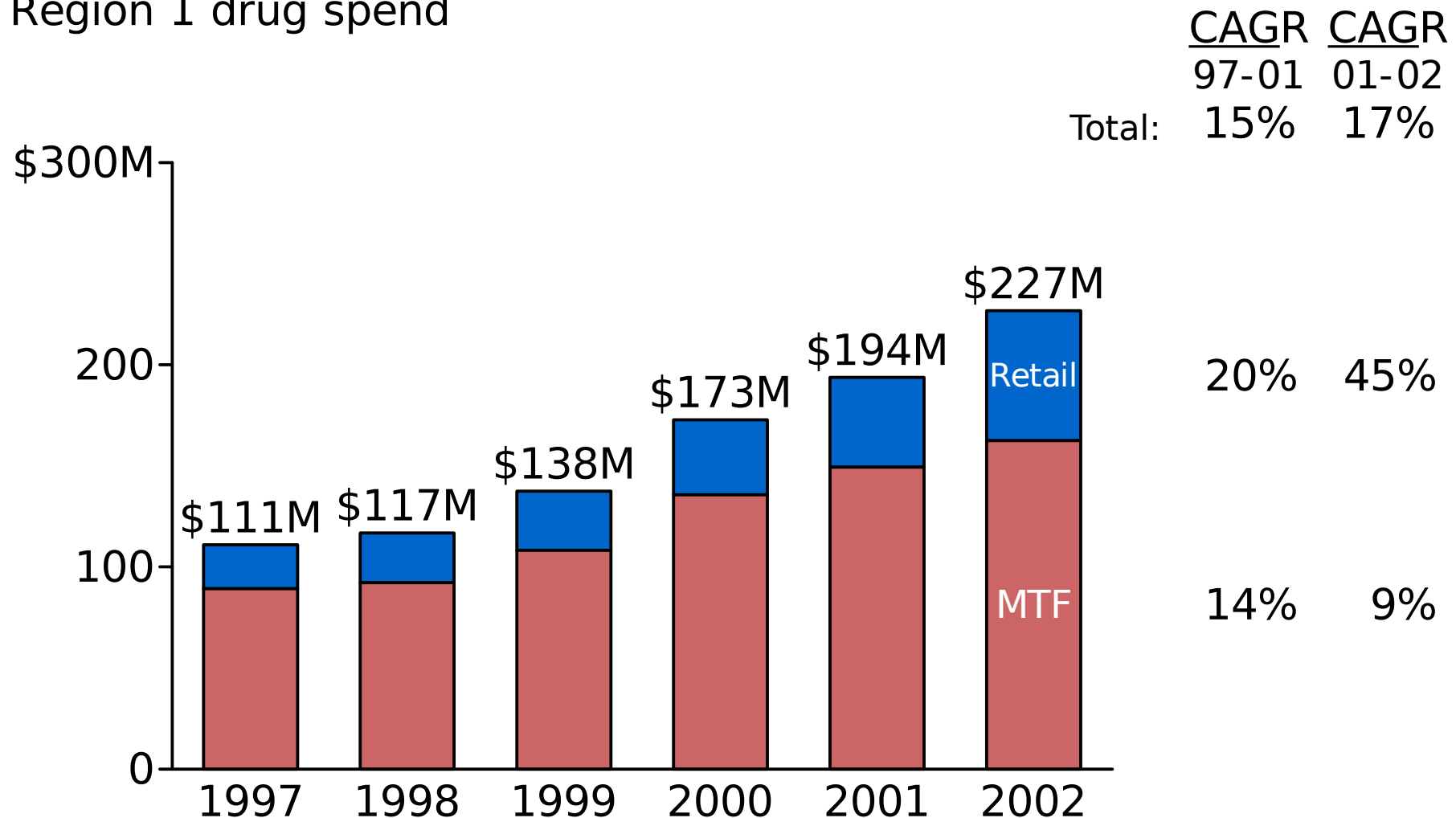
Percent of total FY2003\*



# Retail spend has increased its share of total pharmacy costs, particularly since 2001

**DRAFT**

## Region 1 drug spend



Note: Retail costs jumped from FY01 to FY02 in part due to pharmacy coverage extending to 65+ beneficiaries on April 1, 2001. FY03 annualized based on Q2 spend.

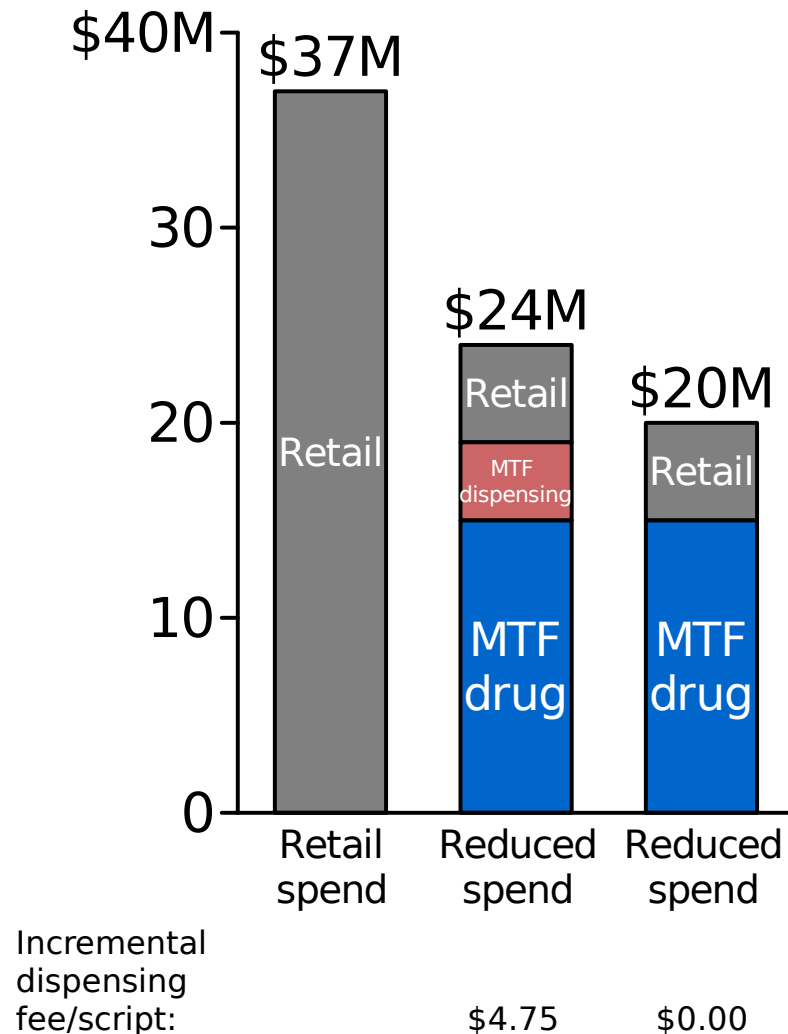
Source: MEPRS; CMIS



# Scripts filled at retail cost the NCA more than those filled internally

**DRAFT**

FY03 costs\*



Note: FY03 costs estimated by annualizing FY03Q2 data. Dispensing fee/script = \$2.25 for retail; \$7 for MHS.

Source: PDTs

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## **Savings opportunity**

- If the DoD successfully transfers MHS pricing for drugs to retail through the TMA Pharmacy RFP process, this could yield \$17M in lower drug costs
  - Assumes that retail pays the same for all drugs in the NCA MTF formulary

## **Outstanding questions**

- How likely is the TMA Pharmacy RFP to be successful?
- If the TMA Pharmacy RFP is not successful:
  - What strategies could the MTFs deploy to capture this spend?
  - What incremental investment would be required?

# Agenda

**DRAFT**

- NCA MHS findings
- Optimization vision for the NCA MHS
- Other considerations
- Short-term initiatives detail
- Detailed methodology

# Detailed methodology

**DRAFT**

- Geographical regions included
- NCA MTFs included
- Clinical service lines included
- Estimation of NCA MHS demand
- Benchmarking of NCA MHS beneficiary usage rates versus civilian sector
- Estimation of NCA MHS provider supply
- Benchmarking of NCA MHS provider productivity versus civilian sector
- Analysis of geographic distribution of providers and MTFs
- Pediatrics business plan
- Miscellaneous
- Third-party billing full potential

**DOD 1**

# For the purposes of this study, we have defined the NCA as comprising the following 12 sub-regions

**DRAFT**

-  Arlington
-  Baltimore
-  Chesapeake
-  DC
-  Frederick
-  Fredericksburg
-  I-95 South
-  NE DC
-  Northern VA
-  Pax River Basin
-  Rockville
-  SE DC

# The following zip codes were analyzed for each sub-region (1 of 3)

Arlington	Arlington (cont.)	Baltimore	Baltimore (cont.)	Baltimore (cont.)	Chesapeake	Chesapeake	DC	DRAFT
• 22106	• 22199	• 21737	• 21150	• 21297	• 21123	• 21624	• 20896	
• 22109	• 22037	• 21094	• 21738	• 21274	• 21114	• 21647	• 20895	
• 22203	• 22118	• 21139	• 21093	• 21275	• 21122	• 21652	• 20891	
• 22046	• 22003	• 21022	• 21286	• 21265	• 21108	• 21653	• 20827	
• 22183	• 22315	• 21239	• 21071	• 21241	• 21054	• 21663	• 20889	
• 20195	• 22332	• 21204	• 21117	• 21098	• 21032	• 21665	• 20812	
• 22230	• 22307	• 21153	• 21222	• 21157	• 21638	• 21676	• 20818	
• 22217	• 22331	• 21214	• 21208		• 21619		• 20207	
• 22201	• 22306	• 21252	• 21136		• 21056		• 20825	
• 22210	• 22309	• 21224	• 21230		• 21666		• 20824	
• 22204	• 22160	• 21251	• 21048		• 21012		• 20816	
• 22027	• 22152	• 21212	• 21060		• 21402		• 20076	
• 22180	• 22060	• 21210	• 21133		• 21146		• 20394	
• 22211	• 22308	• 21209	• 21226		• 21412		• 20016	
• 22202	• 22199	• 21219	• 21207		• 21411		• 20393	
• 22305	• 22303	• 21205	• 21244		• 21405		• 20007	
• 20206	• 22042	• 21218	• 21061		• 21404		• 20057	
• 22044	• 22310	• 21211	• 21227		• 21140		• 20522	
• 22040	• 22124	• 21282	• 21784		• 21661		• 20006	
• 22034	• 20191	• 21055	• 21163		• 21658		• 20037	
• 22181	• 22151	• 21052	• 21228		• 21403		• 20503	
• 22313	• 22150	• 21213	• 21090		• 21401		• 20520	
• 22206	• 22033	• 21270	• 21104		• 21037		• 20052	
• 22041	• 22153	• 21281	• 21794		• 21035		• 20004	
• 22036	• 22015	• 21217	• 21284		• 20764		• 20906	
• 22185	• 22039	• 21216	• 21285		• 20765		• 20852	
• 22314	• 20171	• 21215	• 21278		• 20733		• 20815	
• 22301	• 22079	• 21231	• 21264		• 20751		• 22101	
• 22311	• 22030	• 21201	• 21235		• 20714		• 20814	
• 22312	• 20193	• 21229	• 21289		• 20758		• 20817	
• 22320	• 22226	• 21202	• 21287		• 20754		• 20868	
• 22302	• 20069	• 21233	• 21290		• 20689		• 20860	
• 22304	• 22336	• 21203	• 21263		• 20778		• 20783	
• 22116	• 20070	• 21225	• 21279		• 20716		• 20903	
• 22031	• 22082	• 21268	• 21298		• 20779		• 20915	
• 22032	• 22158	• 21041	• 21288		• 20776		• 20782	
• 22038	• 22159	• 21062	• 21260		• 20711		• 20918	
• 22035	• 22161	• 21250	• 21283		• 20736		• 20912	
• 22333		• 21240	• 21280		• 20732		• 20910	
• 22081		• 21723	• 21273		• 21612		• 20787	

# The following zip codes were analyzed for each sub-region (2 of 3)

**DRAFT**

DC (cont.)	DC (cont.)	DC (cont.)	DC (cont.)	DC (cont.)	DC (cont.)	Frederick	Frederick (cont.)	Fredericksburg
• 20722	• 20073	• 20542	• 20525	• 20222	• 20472	• 21797	• 21713	• 22448
• 20788	• 20051	• 20813	• 20216	• 20250	• 20202	• 21776	• 21756	• 22538
• 20712	• 20045	• 20047	• 20557	• 20221	• 20204	• 21771	• 21755	• 22403
• 20012	• 20226	• 20046	• 20551	• 20219	• 20053	• 21770	• 21733	• 22402
• 20307	• 20220	• 20088	• 20408	• 20543	• 20416	• 17263	• 21782	• 22404
• 20019	• 20201	• 20056	• 20573	• 20510	• 20228	• 21748	• 25443	• 22471
• 20017	• 20044	• 20075	• 20239	• 20436		• 21767	• 21758	• 22446
• 20306	• 20081	• 20029	• 20240	• 20504		• 21759	• 25425	• 22485
• 20015	• 20270	• 20077	• 20405	• 20456		• 21719	• 21792	• 22443
• 20040	• 20410	• 20441	• 20412	• 20469		• 21720	• 21749	• 22405
• 20011	• 20289	• 20061	• 20413	• 20415		• 21793	• 21747	• 22535
• 20064	• 20013	• 20066	• 20425	• 20451		• 21721	• 21746	• 22408
• 20008	• 20553	• 20303	• 20423	• 20418		• 21705	• 21781	• 22401
• 20317	• 20591	• 20299	• 20535	• 20433		• 21741	• 21795	• 22407
• 20018	• 20024	• 20098	• 20055	• 20245		• 21734	• 21716	• 22580
• 20026	• 20515	• 20262	• 20549	• 20463		• 21779	• 21787	
• 20315	• 20905	• 20042	• 20527	• 20547		• 21715		
• 20009	• 20866	• 20244	• 20537	• 20403		• 21718		
• 20090	• 20901	• 20060	• 20533	• 20531		• 21790		
• 20010	• 20904	• 20426	• 20552	• 20580		• 21777		
• 20059	• 20902	• 20540	• 20500	• 20530		• 25410		
• 20422	• 20002	• 20212	• 20434	• 20049		• 21791		
• 20074	• 20740	• 20548	• 20439	• 20560		• 21727		
• 20050	• 20742	• 20578	• 20508	• 20065		• 21778		
• 20003	• 20737	• 20534	• 20571	• 20260		• 21780		
• 20536	• 20784	• 20404	• 20506	• 20261		• 21757		
• 20402	• 20710	• 20213	• 20570	• 20414		• 21788		
• 20401	• 20781	• 20444	• 20505	• 20407		• 21798		
• 20217	• 20791	• 20523	• 20229	• 20411		• 21774		
• 20001	• 20731	• 20431	• 20062	• 20266		• 21783		
• 20036	• 20785	• 20550	• 20502	• 20254		• 21701		
• 20005	• 22205	• 20429	• 20223	• 20251		• 21773		
• 20030	• 22213	• 20080	• 20227	• 20265		• 21702		
• 20210	• 22043	• 20565	• 20555	• 20277		• 21704		
• 20215	• 22209	• 20541	• 20576	• 20594		• 21754		
• 20208	• 22207	• 20559	• 20575	• 20585		• 21742		
• 20211	• 20997	• 20538	• 20539	• 20447		• 21703		
• 20442	• 20058	• 20224	• 20501	• 20546		• 21769		
• 20314	• 20892	• 20068	• 20424	• 20590		• 21710		
• 20082	• 20242	• 20067	• 20268	• 20472		• 21740		

**DOD 1**

# The following zip codes were analyzed for each sub-region (3 of 3)

I-95 South	NE DC	Northern VA	Northern VA (cont.)	Pax River Basin	Pax River Basin (cont.)	Rockville	SE DC	DRAFT
• 22172	• 21036	• 20165	• 20118	• 20775	• 20799	• 20866	• 20020	
• 22545	• 20759	• 20176	• 22412	• 20610	• 20682	• 20879	• 20773	
• 22134	• 20862	• 20180	• 20184	• 20675	• 20619	• 20851	• 20747	
• 22554	• 20830	• 22526	• 20144	• 20617	• 20620	• 20898	• 20753	
• 22406	• 20849	• 20197	• 20115	• 20632	• 20628	• 20899	• 20623	
• 22720	• 21029	• 20129		• 20611	• 20629	• 20884	• 20752	
• 22712	• 20833	• 20122		• 20658	• 20630	• 20875	• 20032	
• 22742	• 21075	• 20121		• 20661	• 20634	• 20880	• 20332	
• 22734	• 21077	• 20143		• 20625	• 20653	• 20885	• 20336	
• 22718	• 20701	• 20135		• 20645	• 20667	• 20839	• 20745	
• 22736	• 20763	• 20108		• 20639	• 20670	• 22067	• 20746	
• 20188	• 20723	• 20132		• 20608	• 20674	• 20882	• 20757	
• 22192	• 20725	• 20164		• 20678	• 20680	• 20872	• 20233	
• 22191	• 20709	• 20175		• 20622	• 20684	• 20871	• 20750	
• 22193	• 21144	• 20166		• 20637	• 20686	• 20832	• 20749	
• 20112	• 21042	• 20147		• 20646	• 20687	• 20853	• 20695	
• 22026	• 21043	• 20158		• 20616	• 20688	• 20855	• 20721	
• 20181	• 21044	• 20148		• 20640	• 20690	• 20876	• 20774	
• 20187	• 21045	• 20151		• 20677	• 20692	• 20877	• 20743	
• 20186	• 21046	• 20152		• 20693		• 20874	• 20772	
• 20119	• 21076	• 20124		• 20664		• 20850	• 20762	
• 22728	• 21113	• 20107		• 20662		• 20838	• 20613	
• 22724	• 20794	• 20041		• 20615		• 20841	• 20748	
	• 20755	• 20120		• 20656		• 20854	• 20744	
	• 20707	• 20105		• 20635		• 20842	• 20735	
	• 20724	• 20110		• 20660		• 22102	• 20607	
	• 20708	• 20169		• 20609		• 20837	• 20601	
	• 20705	• 20109		• 20606		• 22066	• 20603	
	• 20777	• 20141		• 20626		• 20878	• 20602	
	• 20861	• 20117		• 20676		• 22182	• 20389	
	• 20769	• 20111		• 20657		• 20170		
	• 20703	• 20155		• 20685		• 20194		
	• 20771	• 20198		• 20659		• 20190		
	• 20770	• 20136		• 20636				
	• 20768	• 20137		• 20650				
	• 20715	• 20178		• 20624				
	• 20720	• 20177		• 20621				
	• 20706	• 20102		• 20618				
		• 20160		• 20797				
		• 20131		• 20790				

# Detailed methodology

**DRAFT**

- Geographical regions included
- NCA MTFs included
- Clinical service lines included
- Estimation of NCA MHS demand
- Benchmarking of NCA MHS beneficiary usage rates versus civilian sector
- Estimation of NCA MHS provider supply
- Benchmarking of NCA MHS provider productivity versus civilian sector
- Analysis of geographic distribution of providers and MTFs
- Pediatrics business plan
- Miscellaneous
- Third-party billing full potential



# 14 MTFs were included in this study

**DRAFT**

## MTFs included

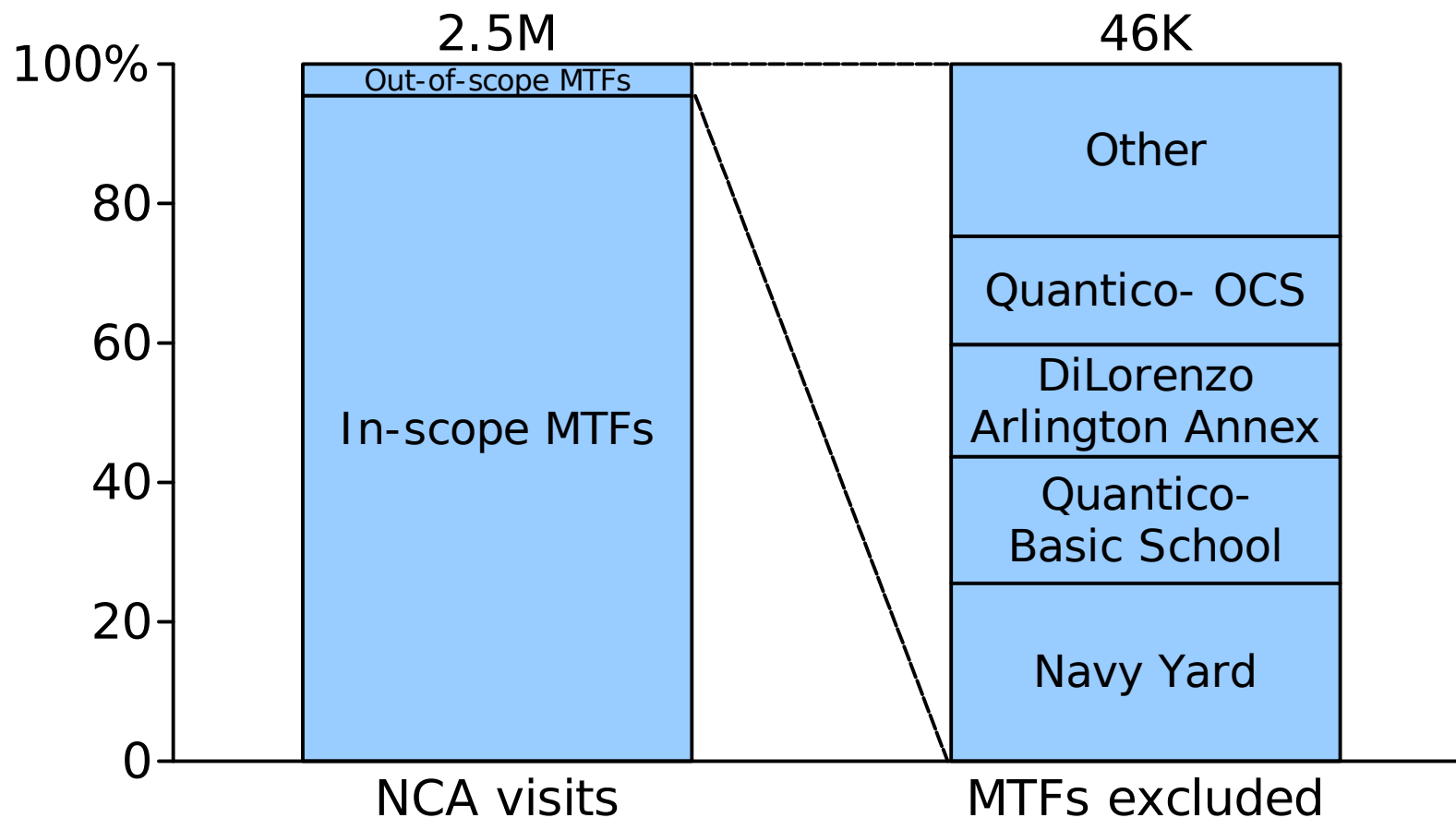
- National Naval Medical Center Bethesda
- Walter Reed Army Medical Center
- Malcolm Grow Medical Center
- DeWitt Army Community Hospital
- Kimbrough Army Community Hospital
- Naval Medical Clinic Quantico
- Family Health Center Woodbridge
- Family Health Center Fairfax
- Naval Medical Clinic Annapolis
- DiLorenzo Army Health Clinic
- Andrew Rader Army Health Clinic
- Naval Medical Clinic Patuxent River
- 11<sup>th</sup> Medical Group, Bolling AFB
- Ft. Detrick Barquist Army Health Center

## MTFs excluded

- Kirk U.S. Army Health Clinic, Aberdeen
- Washington Navy Yard
- White House
- Ft. McNair Health Clinic
- Dunham Army Health Clinic, Carlisle
- Ray Hall Medical Clinic, The Basic School
- Bradley Medical Clinic, OCS
- DiLorenzo Army Health Clinic, Arlington Annex

# The in-scope MTFs account for 95% of NCA direct care visits

**DRAFT**



Note: Visit information was not available for Carlisle and Aberdeen, 2 MTFs that were not included in the study. Out-of-scope MTF visits adjusted downward to estimate the portion of visits due to telcons and APVs.

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# Detailed methodology

**DRAFT**

- Geographical regions included
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- Miscellaneous
- Third-party billing full potential

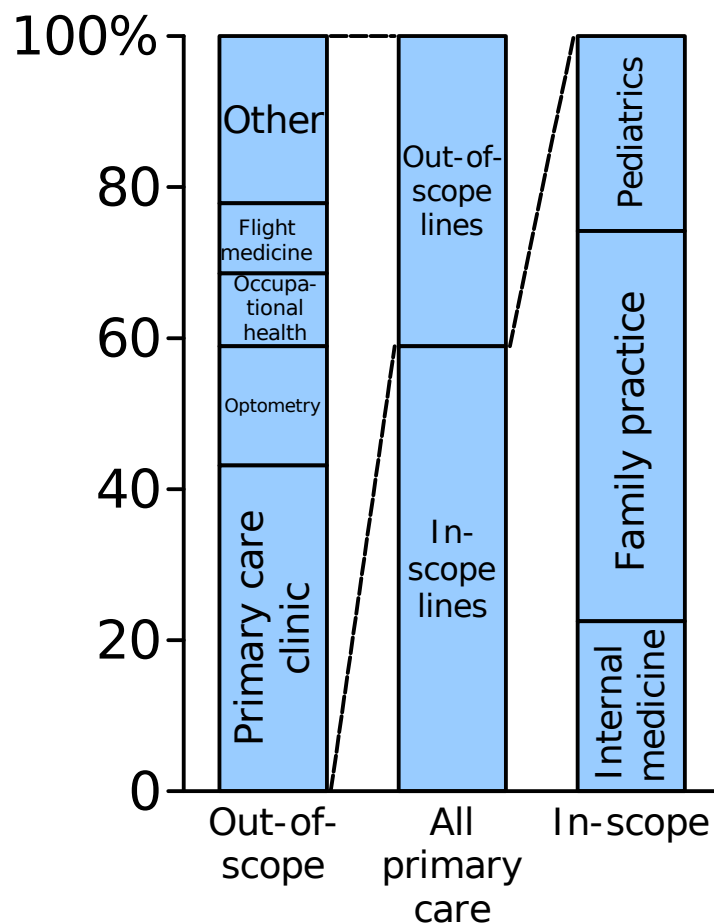
# 30 clinical service lines were included in this study

Service lines included	Service lines excluded	RAFT
<ul style="list-style-type: none"><li>• Allergy</li><li>• CT Surgery</li><li>• Cardiology</li><li>• Dermatology</li><li>• Emergency medicine</li><li>• Endocrinology</li><li>• ENT</li><li>• Family practice</li><li>• Gastroenterology</li><li>• General surgery</li><li>• Hematology/Oncology</li><li>• Infectious disease</li><li>• Internal medicine</li><li>• Mental health</li><li>• Nephrology</li><li>• Neurology</li><li>• Neurosurgery</li><li>• Ob/Gyn</li><li>• Ophthalmology</li><li>• Organ transplant</li><li>• Orthopedics</li><li>• Pain management</li><li>• Pediatric surgery</li><li>• Pediatrics</li><li>• Plastic surgery</li><li>• Physical therapy</li><li>• Pulmonary</li><li>• Rheumatology</li><li>• Urology</li><li>• Vascular surgery</li></ul>	<ul style="list-style-type: none"><li>• Proctology</li><li>• Radiation therapy</li><li>• Primary care clinic</li><li>• Cast clinic</li><li>• Orthotic lab</li><li>• Adolescent clinic</li><li>• Well baby clinic</li><li>• Medical examination clinic</li><li>• Flight Medicine clinic</li><li>• Nutrition clinic</li><li>• Optometry</li><li>• Audiology</li><li>• Speech pathology</li><li>• Community health</li><li>• Occupational health</li></ul>	

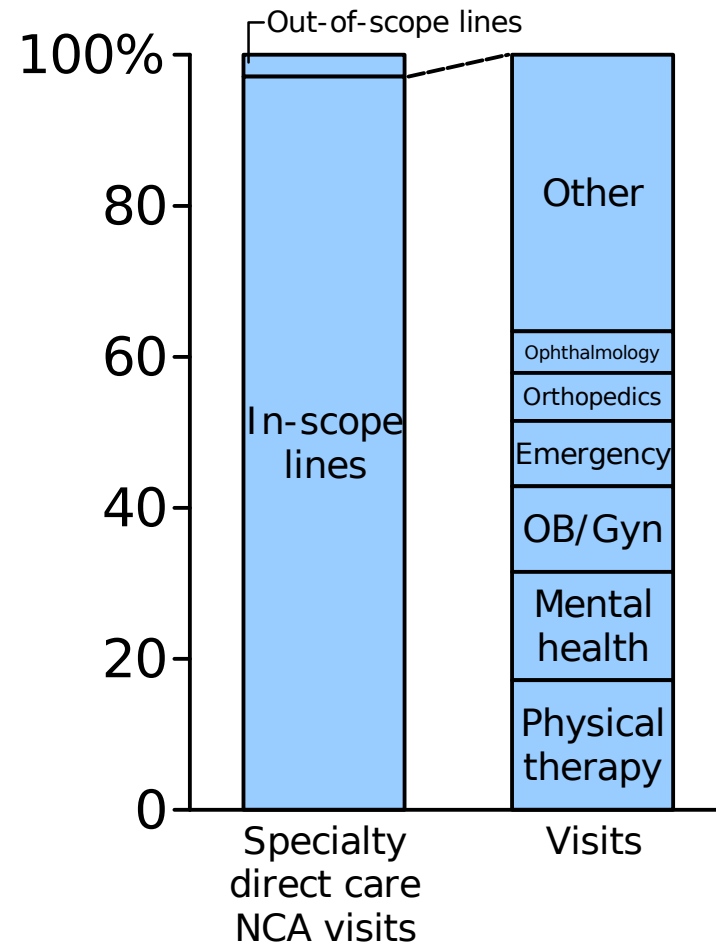
# In-scope service lines account for 59% of primary care visits and 97% of specialty care visits

**DRAFT**

NCA primary care visits



NCA specialty care visits



# Detailed methodology

**DRAFT**

- Geographical regions included
- NCA MTFs included
- Clinical service lines included
- Estimation of NCA MHS demand
- Benchmarking of NCA MHS beneficiary usage rates versus civilian sector
- Estimation of NCA MHS provider supply
- Benchmarking of NCA MHS provider productivity versus civilian sector
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- Pediatrics business plan
- Miscellaneous
- Third-party billing full potential

# Estimation of demand for healthcare services

**DRAFT**

## Analysis

## Data Source

Step 1

- **Usage rate** (visits per 1,000 eligible population) was calculated by dividing actual FY00 MTF workload by the number of NCA eligible patients
  - Direct care workload data for the 14 Bain “in-scope” MTFs was sourced from the SADR and SIDR databases
  - Purchased care workload for the NCA, as defined in the 2001 Bristol Group study, was obtained from the HCSR-I and N files
  - Workload data was divided by service line, patient age cohort and origin (NCA, ONCA) by The Bristol Group
  - FY00 demographic data from the 2001 Bristol Group study was used for the denominator in calculating visitation rates

- Kennell and Associates
- The Bristol Group

Step 2

- Total NCA expected workload was calculated by **multiplying usage rates by the expected eligible population**
  - Zip code level eligible population projections, by age cohort, were sourced for 2003-2008
  - Expected NCA direct and purchased care workloads were calculated by service line and age cohort using zip code level population projections
  - ONCA direct and purchased care workloads were assumed to be a constant, additional % of NCA workload
  - Projected decreases in demand were included for OB/Gyn (expiration of NAS program), Neurosurgery and CT surgery (expiration of STS program)

- Kennell and Associates
- Bain estimates

DOD 2

# Usage rates, however, will likely impact demand

**DRAFT**

## Usage Trends

- Outpatient visit demand for NCA direct care grew at 6.1% annually from 2000 to 2002
  - 2.3% of the growth was due to population growth
  - The remaining 3.8% represents usage growth
- We have modeled that demand will continue to grow above population rates (increased usage) from 2003 to 2008, but a lower rate
  - 1.9% annual usage growth rate applied for 2003 to 2008

## Regulatory Changes

- NAS: non-availability statement phase-out
  - OB/Gyn regulation will enable patients to use any outside service without financial penalty (only \$20)
  - Major impact modeled to impact OB/Gyn demand
  - 30% fewer OB/Gyn visits projected for 2008\*
- STS to COE transition: special treatment service programs are being eliminated
  - CT surgery and Neurosurgery will face the most significant demand decreases
  - CT surgery modeled to decrease by 18%\*\*
  - Neurosurgery modeled to decrease by 17%\*\*

Note: \* OB/Gyn demand decrease based on Bearing Point study findings. \*\* Estimates for CT surgery and Neurosurgery demand decreases based on loss of ONCA care as follows: demand generated from patients living from 41-100 miles from MTF decreased by 50%; for patient living more than 100 miles from MTF, 75% of demand was estimated to be lost.



# Methodology for estimating total healthcare visits for NCA MHS eligibles

**DRAFT**

	Prime: 0-17	All other eligibles: 0-17	Prime: 18-44	All other eligibles: 18-44	Prime: 45-64	All other eligibles: 45-64	Prime: 65+	All other eligibles: 65+	Total
Individuals	73K	30K	113K	46K	50K	61K	0	61K	434K
X									
Actual NCA Prime utilization rate (visits/yr)	5.1	5.1	7.1	7.1	9.3	9.3	15.9	15.9	
=									
Total visits	373K	151K	804K	323K	461K	571K	0	976K	<b>3.7M</b>

$$\frac{\text{Actual direct care} + \text{Tricare purchased care}}{\text{Estimated total healthcare visits for all eligibles}} = \frac{2.2\text{M} + 0.7\text{M}}{3.7\text{M}} = 78\%$$

Note: Prime utilization rates applied to 0-17 and 18-44 age buckets were actually computed for 0-24 and 25-44, respectively.

Source: SADR 2002 visit data for sample population of 199,819 enrollees; Kennell and Associates

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**DOD 2**

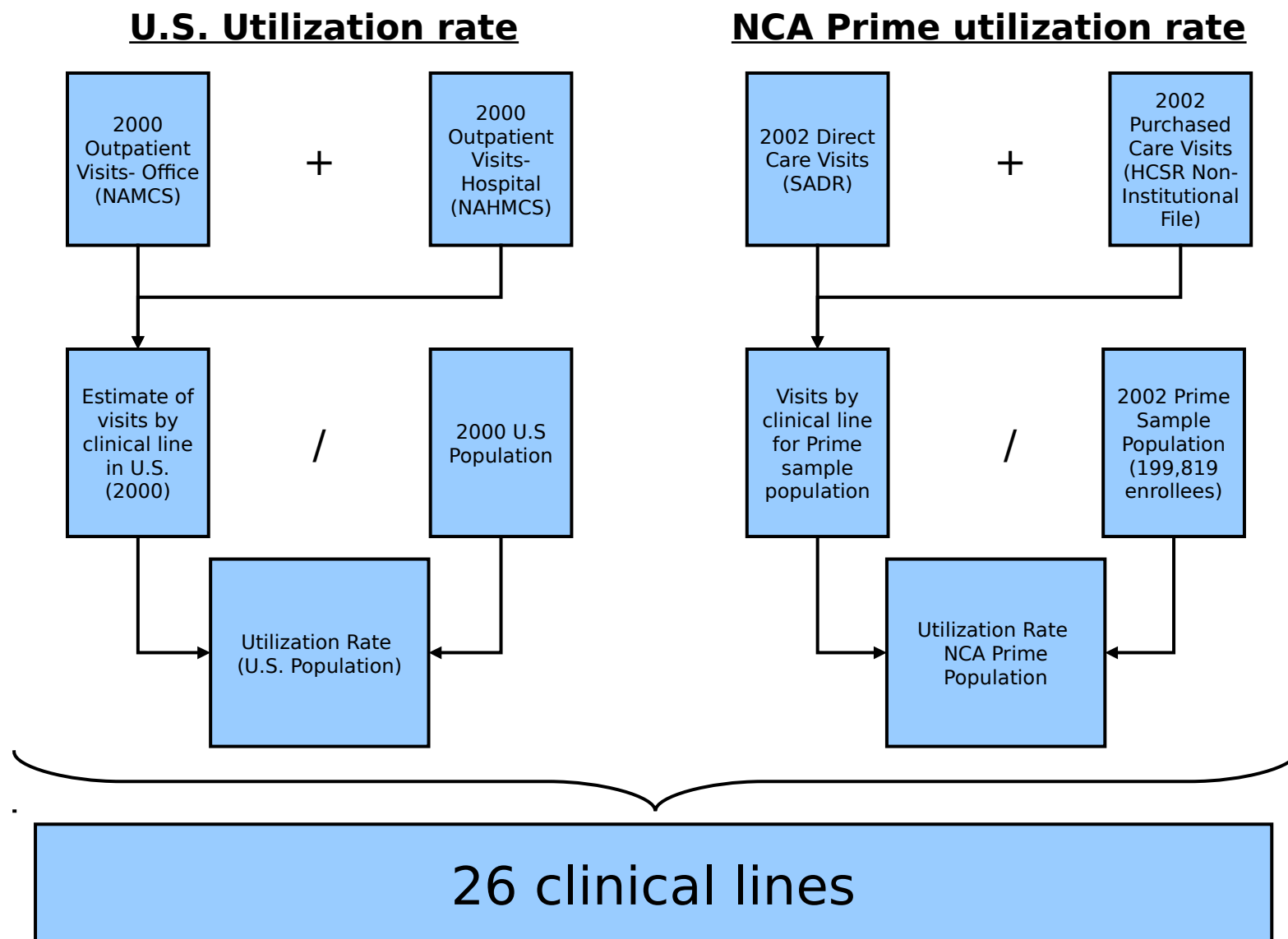
# Detailed methodology

**DRAFT**

- Geographical regions included
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- Benchmarking of NCA MHS beneficiary usage rates versus civilian sector
- Estimation of NCA MHS provider supply
- Benchmarking of NCA MHS provider productivity versus civilian sector
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- Miscellaneous
- Third-party billing full potential

# Outpatient utilization rate analysis methodology

**DRAFT**



Note: All data was broken down into four age buckets: 0-24, 25-44, 45-64, 65+.

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**DOD 2**

# Outpatient utilization rate analysis key assumptions and notes

**DRAFT**

- NCA Prime sample utilization
  - All data is for FY02
  - All data is based on the MTF Prime enrolled population
    - Recorded as “A” or “E” in 12/02 M2 Enrollee table
  - Only enrollees with a zip code within the NCA 2003 study area are included
  - Only enrollees at the 14 “in-scope” MTFs are included
  - Ambulatory procedures are not counted as visits
  - Telephone consults are not counted as visits
  - On the direct care side, only visits classified as “countable” for world wide workload reporting were included
  - Utilization rates were computed in four age buckets (0-24, 25-44, 45-64, 65+)
- CDC civilian usage rate data
  - All data is for CY 2000
  - Specialty care categories were grouped into clinical lines to match NCA data
  - Utilization rates were computed in four age buckets (0-24, 25-44, 45-64, 65+) and had NCA population breakdown weights applied to yield expected utilization values for NCA
- NCQA HMO/POS utilization rate
  - Rate was adjusted downward by 33% to account for the estimate of total care included in civilian and NCA Prime benchmarks
    - Adjustment factor was computed by dividing in-scope direct care visits by total direct care visits

**DOD 2**

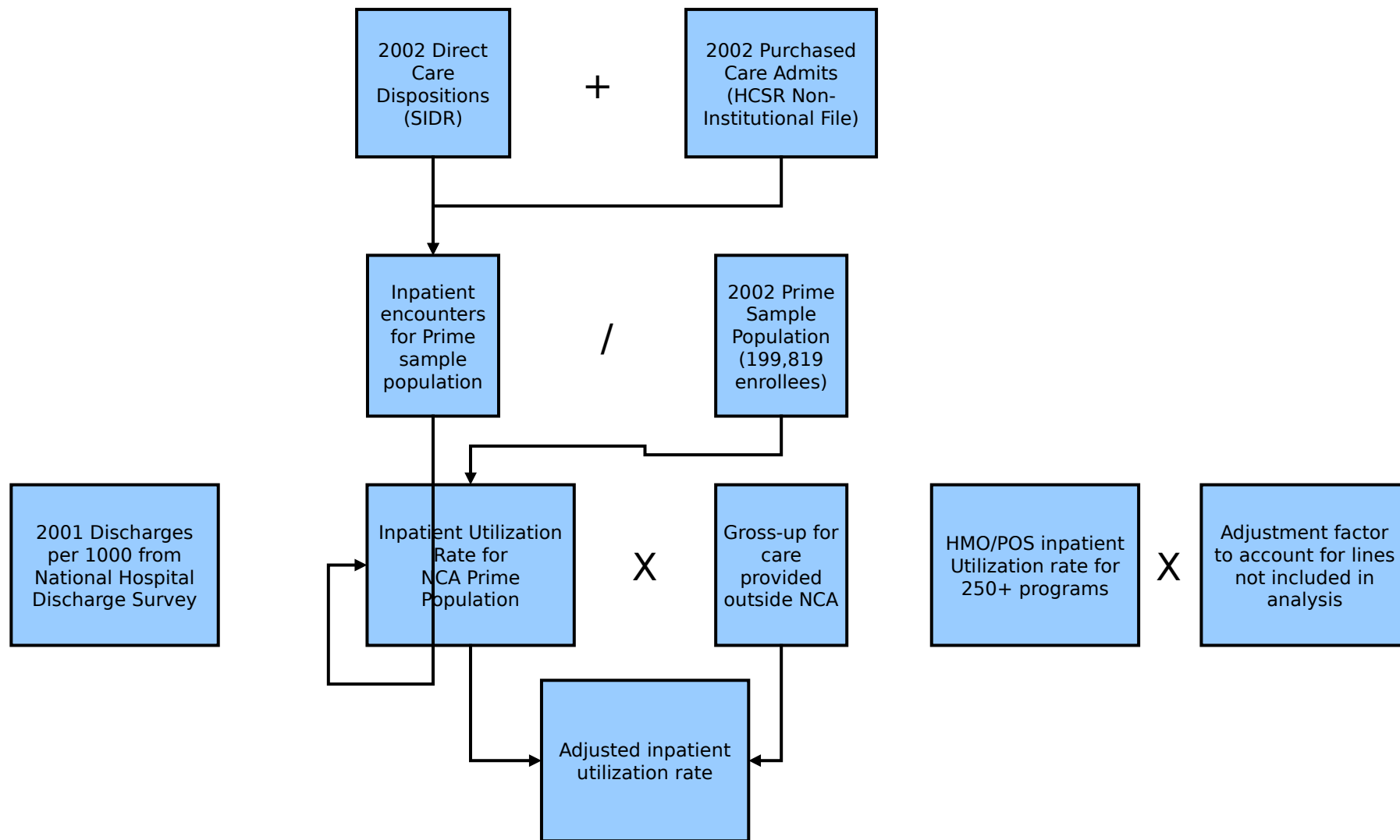
# Inpatient utilization rate analysis methodology

**DRAFT**

## U.S. Utilization Rate

## NCA Prime Utilization Rate

## HMO/POS Utilization Rate



Note: All data was broken down into four age buckets: 0-24, 25-44, 45-64, 65+

# Inpatient utilization rate analysis key assumptions and notes

**DRAFT**

- NCA Prime sample utilization
  - All data is for FY02
  - All data is based on the MTF Prime enrolled population
    - Recorded as “A” or “E” in 12/02 M2 Enrollee table
  - Only enrollees with a zip code within the NCA 2003 study area are included
  - Only enrollees at the 14 “in-scope” MTFs are included
  - Utilization to providers not within the NCA is accounted for by increasing utilization rate by approximately 16% to account for estimate of care provided outside the NCA
  - Utilization rates were computed in four age buckets (0-24, 25-44, 45-64, 65+)
- CDC civilian usage rate data
  - All data is for CY 2001
  - Utilization rates were computed in four age buckets (0-24, 25-44, 45-64, 65+) and had NCA population breakdown weights applied to yield expected utilization values for NCA
- NCQA HMO/POS data
  - As the age buckets for which utilization rates were computed differed slightly from the other two data sources, various blends or proxies were used
    - For example, the 0-24 utilization rate is a weighted average of the <1, 1-9, and 10-19 buckets from the NCQA

# Detailed methodology

**DRAFT**

- Geographical regions included
- NCA MTFs included
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- Miscellaneous
- Third-party billing full potential

# Estimation of current NCA MHS provider numbers

**DRAFT**

	Description	Sources
Staff headcount	<ul style="list-style-type: none"><li>• Surveyed clinical service lines to determine headcount and time allocation for various providers</li></ul>	<ul style="list-style-type: none"><li>• Bain Manpower Survey</li></ul>
Addition of non-physician provider physician equivalents	<ul style="list-style-type: none"><li>• Non-physician providers converted as 90% of a staff physician equivalent</li></ul>	<ul style="list-style-type: none"><li>• NCA Working Group; Clinical experience</li></ul>
Addition of resident and fellow physician equivalents	<ul style="list-style-type: none"><li>• Residents and fellows converted to staff physician equivalents for each clinical line (see next slide for details)</li></ul>	<ul style="list-style-type: none"><li>• NCA Working Group</li></ul>
Clinical FTE's	<ul style="list-style-type: none"><li>• Clinical FTEs calculated based on the average percent of non-GME and non-military time</li></ul>	<ul style="list-style-type: none"><li>• Bain Manpower Survey</li></ul>
2008 projections	<ul style="list-style-type: none"><li>• Resident and fellow physician equivalent conversion rates adjusted down by 10% to account for decline in workweek length to a maximum of 80 hrs/week</li></ul>	<ul style="list-style-type: none"><li>• NCA Working Group</li></ul>

**DOD 2**



# Resident and fellow provider conversions

**DRAFT**

	Residents	Fellows
Clinic productivity compared with staff provider	<ul style="list-style-type: none"><li>• Average of 50% as productive across all post-graduate years and service lines</li></ul>	<ul style="list-style-type: none"><li>• Average of 90% as productive for all service lines</li></ul>
Time in clinics compared with staff providers	<ul style="list-style-type: none"><li>• Internal medicine and medical specialties estimated as spending 30% of staff time in clinics</li><li>• Surgical specialties estimated as spending 50% of staff time in clinics</li><li>• Family practice and pediatrics estimated as spending 70% of staff time in clinics</li></ul>	<ul style="list-style-type: none"><li>• Time spent in clinic estimated as ~78% of staff time</li></ul>
Final conversion rate	<ul style="list-style-type: none"><li>• Internal medicine and medical specialties = 15% of staff</li><li>• Surgical specialties = 25% of staff</li><li>• Family practice and pediatrics = 35% of staff</li></ul>	<ul style="list-style-type: none"><li>• Fellows = 70% of staff</li></ul>
Rates for 2008	<ul style="list-style-type: none"><li>• Decreased conversion rate by 10% to account for 80 hour per week legislation (assumed decreased hours would be mostly taken from inpatient vs. outpatient work)</li></ul>	<ul style="list-style-type: none"><li>• Decreased conversion rate by 10% to account for 80 hour per week legislation (assumed decreased hours would be mostly taken from inpatient vs. outpatient work)</li></ul>

Source: CDR Chandler; Bain Manpower Survey; Medline publications

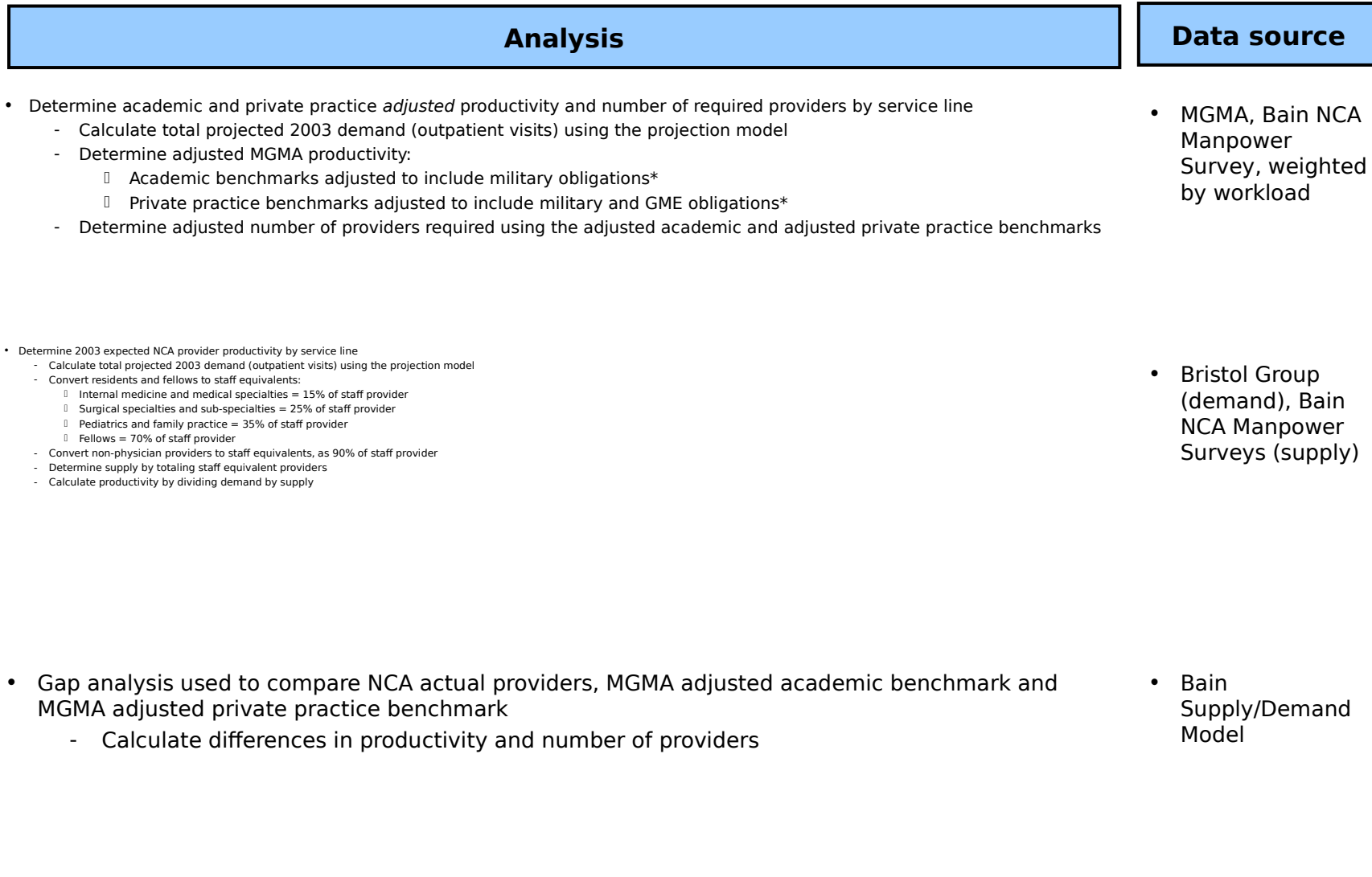
# Detailed methodology

**DRAFT**

- Geographical regions included
- NCA MTFs included
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# Provider productivity has been benchmarked using outpatient visits by service lines

**DRAFT**



Note: Adjustment to academic benchmarks is unadjusted providers/(1-% military time). Adjustment to private practice benchmarks is Unadjusted providers/(1-% military time - % GME time). See "Resident and fellow provider conversions" methodology slide for conversion rates of residents and fellows to staff physicians.

Source: CDR Chandler; Bain Manpower Survey; Medline publications

**DOD 2**

# The MGMA surveys yielded both academic and private practice benchmarks

**DRAFT**

## 2003 Academic survey



- 415 clinical departments
- 104 medical schools
- 11,435 faculty

## 2002 Private practice survey



- ▯ 1,545 medical practices
- ▯ 33,421 physicians

# 104 medical teaching institutions are covered in the MGMA academic survey

**DRAFT**

- Albany Medical College
- Baylor College of Medicine
- Case Western Reserve University School of Medicine
- Columbia University College of Physicians and Surgeons
- Cornell University Joan and Sanford I. Weill Medical College and Graduate School of Medical Sciences
- Creighton University School of Medicine
- Duke University School of Medicine
- The Brody School of Medicine at East Carolina University
- East Tennessee State University
- Emory University School of Medicine
- Georgetown University School of Medicine
- Harvard Medical School, Brigham & Women's Hospital
- Harvard Medical School, Massachusetts General Hospital
- Harvard Medical School, Beth Israel Deaconess Medical Center
- Indiana University School of Medicine
- John Hopkins University School of Medicine, East Baltimore
- Keck School of Medicine of the University of Southern California
- Loma Linda University School of Medicine
- Louisiana State University School of Medicine in New Orleans
- Loyola University of Chicago Stritch School of Medicine
- Joan C. Edwards School of Medicine at Marshall University
- Medical College of Georgia School of Medicine
- Medical College of Ohio
- Medical College of Wisconsin
- Mercer University School of Medicine
- Michigan State University College of Human Medicine
- Morehouse School of Medicine
- Northwestern University Medical School, Northwestern Memorial Hospital
- Ohio State University School of Medicine and Public Health
- Oregon Health Sciences University School of Medicine
- Pennsylvania State University College of Medicine
- Saint Louis University School of Medicine
- Southern Illinois University School of Medicine
- Stanford University School of Medicine
- State University of New York Downstate Medical Center
- State University of New York at Stony Brook Health Sciences Center
- University of Buffalo, State University of New York School of Medicine and Biomedical Sciences
- State University of New York Upstate Medical University
- Texas Tech University Health Sciences Center School of Medicine
- Tulane University School of Medicine, Health Sciences Center
- University of Alabama School of Medicine
- University of Arizona College of Medicine
- University of Arkansas College of Medicine
- University of California, Irvine, College of Medicine
- University of California, Davis, School of Medicine
- University of California, Los Angeles, UCLA School of Medicine
- University of California, San Diego, School of Medicine
- University of California, San Francisco, School of Medicine
- University of Cincinnati College of Medicine
- University of Colorado School of Medicine
- University of Connecticut School of Medicine
- University of Florida College of Medicine, Gainesville
- University of Florida College of Medicine, Jacksonville
- University of Illinois at Chicago College of Medicine
- University of Iowa College of Medicine
- University of Kansas School of Medicine
- University of Kentucky College of Medicine
- University of Maryland School of Medicine
- University of Massachusetts Medical School
- University of Medicine and Dentistry of New Jersey Medical School
- University of Medicine and Dentistry of New Jersey Robert Wood Johnson Medical School
- University of Miami College of Medicine
- University of Michigan Medical School
- University of Mississippi School of Medicine
- University of Missouri-Columbia School of Medicine
- University of Missouri-Kansas City School of Medicine
- University of Nebraska College of Medicine
- University of New England College of Osteopathic Medicine
- University of North Carolina at Chapel Hill School of Medicine
- University of Oklahoma College of Medicine, Oklahoma City
- University of Oklahoma College of Medicine, Tulsa
- University of Pennsylvania School of Medicine
- University of South Alabama College of Medicine
- University of South Carolina School of Medicine
- University of South Florida College of Medicine
- University of Tennessee, Health Science Center, College of Medicine
- University of Texas Southwestern Medical Center at Dallas Southwestern Medical School
- University of Texas Medical School at Houston
- University of Texas Medical School at San Antonio
- University of Texas Medical Branch University of Texas Medical School at Galveston
- University of Utah School of Medicine
- University of Virginia School of Medicine
- University of Washington School of Medicine
- University of Wisconsin Medical School
- Vanderbilt University School of Medicine
- Virginia Commonwealth University School of Medicine
- Wake Forest University School of Medicine
- Washington University School of Medicine
- Wayne State University School of Medicine
- West Virginia University School of Medicine
- Wright State University School of Medicine
- Yale University School of Medicine

Note: The names of 12 of the 104 medical teaching institutions were not released.

Source: MGMA

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DOD 2

# Detailed methodology

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# Geographic distribution of assets was assessed by analyzing distances traveled for outpatient visits

**DRAFT**

Distance traveled for each 2002 direct care visit for patients living inside NCA

```
graph TD; A[Distance traveled for each 2002 direct care visit for patients living inside NCA] --> B[Excess demand = for each NCA zip code, number of visits falling outside distance access standards (20 miles for primary care and 40 miles for specialty care)]; A --> C[Excess provider supply = for each MTF, number of visits falling outside distance access standards (20 miles for primary care and 40 miles for specialty care)];
```

**Excess demand** = for each NCA zip code, number of visits falling outside distance access standards (20 miles for primary care and 40 miles for specialty care)

**Excess provider supply** = for each MTF, number of visits falling outside distance access standards (20 miles for primary care and 40 miles for specialty care)

- “Excess” visits converted into provider FTEs by applying current NCA productivity (visits per provider) for applicable service line(s)
- Gaps between provider supply and demand for care analyzed by comparing excess demand and supply by geographical area
- Recommendations to better serve based on reallocating providers to MTFs within access range or establishing new MTF locations as needed
- Analysis also conducted using 10 (primary) and 20 mile (specialty) access standards

**DOD 2**

# Detailed methodology

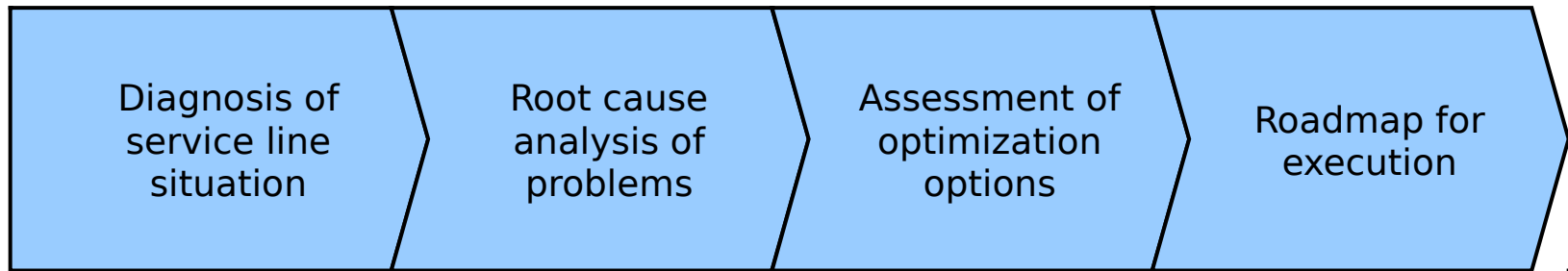
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# The business planning “template” provides tools to diagnose, analyze and optimize a service line

**DRAFT**



## Purpose

- Use key indicators to flag the presence of underlying problems
- Assess the root cause of each problem to highlight actionable solutions
- Prioritize solutions
- Create an implementation plan to achieve target results and measure progress

## Methodology

- Assess general and specialist lines on 7 metrics related to provider workload, provider pipeline and patient service
- For each identified problem, break down into component drivers and analyze for each line and MTF
- Qualitatively rate each initiative based on ease of implementation (easy vs. hard) and timeline of impact (immediate vs. long-term)
- Establish targets, expected timing and key metrics to track progress against targets









# Pediatric lines were analyzed across both general pediatrics and sub-specialties


**DRAFT**


- General pediatrics
- Pediatric sub-specialties
  - Adolescent medicine
  - Developmental pediatrics
  - Genetics
  - Neonatal medicine
  - Pediatric cardiology
  - Pediatric endocrinology
  - Pediatric gastroenterology
  - Pediatric hem-onc
  - Pediatric infectious diseases
  - Pediatric nephrology
  - Pediatric pulmonary
  - Pediatric critical care


# A detailed diagnostic of pediatrics was conducted

**DRAFT**

Diagnostic Test	Metric	Pediatrics	
		Status	Assessment
<b>Provider workload:</b>			
1. Are providers sufficiently <b>productive</b> (both overall, and at a subspecialty level)?	• Productivity per provider		• Low productivity in pediatric sub-specialty lines
2. Are providers optimally distributed?	• Patient drive distances to point of care		• Insufficient general pediatrics providers in the south
3. Are providers seeing sufficient <b>complex cases</b> to remain current?	• Board passing rates		• Sufficient case work to maintain physician currency and current GME
<b>Provider pipeline:</b>			
4. Are we able to <b>retain</b> a reasonable number of our providers?	• Annual attrition rate		• Low attrition in sub-specialty care, average in general pediatrics
5. Is our <b>provider pipeline</b> optimal to <b>supply</b> our future needs?	• Net annual gain / loss of providers • 2008P productivity		• 2008P productivity projected to be lower than 2003E in sub-specialties
<b>Patient service:</b>			
6. Are our patients able to get good <b>access</b> to direct care?	• Available appointments • Leakage rates		• Access and leakage above standards (However, greater leakage at Quantico)
7. Are our patients <b>satisfied</b> with the quality of care they receive?	• Satisfaction surveys		• Recommend analyzing captured specialty level survey data
8. Are we providing high <b>clinical quality</b> of care?	• Morbidity / mortality rates • Physician re-certification		• Recommend tracking at a NCA pediatrics level

 = Key issue area

 = Potential for improvement

 = No problems identified

**DOD 2**

# Detailed methodology

**DRAFT**

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# Detailed comparison of GAO and CNA methodologies on GME (1/2)

**DRAFT**

Key area	GAO position	CNA position	Implications
<ul style="list-style-type: none"> <li>Date prepared</li> </ul>	<ul style="list-style-type: none"> <li>1995</li> </ul>	<ul style="list-style-type: none"> <li>2003</li> </ul>	<ul style="list-style-type: none"> <li>CNA is 8 years more recent, and drew extensively on all reports drafted prior to 2003</li> </ul>
<b><u>Amortization period</u></b>			
<ul style="list-style-type: none"> <li>Amortization method</li> </ul>	<ul style="list-style-type: none"> <li>Years of military service</li> </ul>	<ul style="list-style-type: none"> <li>Years of practice as a full physician</li> </ul>	<ul style="list-style-type: none"> <li>USUHS and HPSP direct are on active duty service as residents, HPSP deferred and FAP are not</li> <li>Has effect of spreading USUHS and HPSP deferred costs over an additional 4 years in amortization calculation</li> <li>However, residents are not typically deployable                             <ul style="list-style-type: none"> <li>Exception is Navy, where GMO's utilized extensively for 2 years of service</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Amortization period</li> </ul>	<ul style="list-style-type: none"> <li>Relies on DoD retention data, projects forward using attrition assumptions</li> <li>Uses an average retention time</li> </ul>	<ul style="list-style-type: none"> <li>Relies on DoD retention data, projects forward using attrition assumptions</li> <li>Calculated retention by clinical service line</li> </ul>	<ul style="list-style-type: none"> <li>CNA relies on 8 years of additional retention data                             <ul style="list-style-type: none"> <li>GAO concluded that USUHS physicians would have an average of 18.5 yrs of service, though they had only 15yrs of data on which to base calculations</li> </ul> </li> <li>CNA has a greater depth of analysis                             <ul style="list-style-type: none"> <li>Projections by service line</li> </ul> </li> </ul>

# Detailed comparison of GAO and CNA methodologies on GME (2/2)

**DRAFT**

Key area	GAO position	CNA position	Implications
<b><u>Accession costs</u></b>			
<ul style="list-style-type: none"> <li>Acquisition costs to 'build' a full physician</li> </ul>	<ul style="list-style-type: none"> <li>Calculated all costs incurred in medical school, and residency, including pay and benefits as a student/resident</li> </ul>	<ul style="list-style-type: none"> <li>Calculated all costs incurred in medical school, and residency, including pay and benefits as a student/resident</li> </ul>	<ul style="list-style-type: none"> <li>Very similar</li> </ul>
<ul style="list-style-type: none"> <li>Pay as a full physician</li> </ul>	<ul style="list-style-type: none"> <li>GAO included pay and benefits accruing to the fully trained physician in calculating total cost to DoD</li> </ul>	<ul style="list-style-type: none"> <li>Bain only showed accession costs, and did not display pay as a full physician in accession costs</li> </ul>	<ul style="list-style-type: none"> <li>Bain's display of CNA data understates the cost of USUHS and HPSP direct physicians slightly                             <ul style="list-style-type: none"> <li>Bain displayed accession costs per year of practice</li> <li>However, these physicians are more senior when they graduate, and have on average a higher pay and benefits</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>Other federal costs</li> </ul>	<ul style="list-style-type: none"> <li>GAO included other federal subsidies of the civilian medical school and GME programs in attempt to quantify a full federal cost of utilizing the civilian system for HPSP deferred</li> </ul>	<ul style="list-style-type: none"> <li>CNA performed analysis only from the perspective of the DoD, and did not include federal funding of civilian programs</li> </ul>	<ul style="list-style-type: none"> <li>GAO study has attempted to quantify the cost of training from a federal perspective, by including Medicare and NIH subsidies</li> <li>However, since almost all physicians (especially FAP and HPSP deferred) enter private practice at some point, these federal costs should actually be allocated between military practice and civilian practice, not fully allocated to the military</li> </ul>

# Methodology for AHA staffing and support level benchmarking

**DRAFT**

- The staffing analysis focused on the following MTFs: WRAMC, NNMC, and MGMC
- Benchmark data was sourced from the FY 2001 Advancing Health in America (AHA) annual survey database and is focused on 45 facilities
  - Criteria used to select benchmark facilities: Academic hospitals in NY, PA, MD, MA, ME, RI, DE, NJ, & DC with at least 185 FTE residents/interns

Allegheny General Hospital  
Atlantic Health System  
Baystate Medical Center  
Bellevue Hospital Center  
Beth Israel Medical Center  
Boston Medical Center  
Brigham and Women's Hospital  
Bronx-Lebanon Hospital Center  
Brookdale Hospital Medical Ctr  
Children's Hospital of Phila  
Christiana Care Hlth System  
Geisinger Medical Center

Hospital of the Univ of PA  
Howard University Hospital  
Jacobi Medical Center  
Kings County Hospital Center  
Lenox Hill Hospital  
Long Island Jewish Medical Ctr  
Lutheran Medical Center  
Maimonides Medical Center  
Maine Medical Center  
Malcolm Grow Medical Center  
Massachusetts General Hospital

MedStar-Georgetown Med Ctr  
Mem Sloan-Kettering Cancer Ctr  
Montefiore Medical Center  
National Naval Medical Center  
New York Methodist Hospital  
New York Univ Medical Center  
Newark Beth Israel Med Center  
North Shore University Hosp  
Penn State Hershey Medical Ctr  
Rhode Island Hospital  
St Luke's-Roosevelt Hosp Ctr

St Vincents Catholic Med Ctr  
Staten Island University Hosp  
Strong Mem Hosp Rochester Univ  
Tufts-New England Med Center  
Univ of Maryland Med Center  
University Hospital  
VA New York Harbor Healthcare  
Walter Reed Army Med Center  
Washington Hospital Center  
Westchester Medical Center  
Winthrop-University Hospital

- “Other personnel FTEs” includes personnel from management, administration, and non-nursing clinical support staff

# Detailed methodology

**DRAFT**

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# Estimating full potential collections involves five steps

**DRAFT**

<u>Steps</u>	<u>Description</u>	<u>Comment</u>
<b>1. Estimate current FY03E collections</b> <ul style="list-style-type: none"> <li>• <b>Current year</b> service date collections</li> <li>• <b>Prior year</b> service date collections (PY1, PY2)</li> </ul>	<ul style="list-style-type: none"> <li>• Annualize YTD03 billings</li> <li>• Apply FY02 OHI capture, write-off and open claims rates</li> <li>• Total collections = CY + PY1 + PY2</li> </ul>	<ul style="list-style-type: none"> <li>• Annualize billing based on visits, FY02 OHI rates, and YTD billing/OHI visit</li> <li>• For inpatient: apply FY02 OHI rate while maintaining YTD billing/OHI visit</li> <li>• Use FY02 “rates” because of variability in YTD rates</li> <li>• May over-state current year collections</li> <li>• Assume PY1 and PY2 for FY03 remain constant at FY02 levels</li> <li>• May over-state PY collections</li> </ul>
<b>2. Improve OHI capture</b>	<ul style="list-style-type: none"> <li>• Increase OHI capture to 15% of total visits</li> </ul>	<ul style="list-style-type: none"> <li>• Assumes MTFs able to identify 15% of visits as OHI</li> </ul>
<b>3. Reduce current year write-off rate</b>	<ul style="list-style-type: none"> <li>• Reduce write-off rate based on potentially controllable write-off analysis</li> </ul>	<ul style="list-style-type: none"> <li>• 50% of potentially controllable write-offs assumed to be achievable*</li> </ul>
<b>4. Reduce current year open claims rate</b>	<ul style="list-style-type: none"> <li>• Reduce open claims rate based on potentially controllable open claims analysis</li> </ul>	<ul style="list-style-type: none"> <li>• 50% of potentially controllable open claims assumed to be achievable</li> </ul>

\*Write-off rate for WRAMC outpatient not reduced because of its current low level for FY02 (25%).

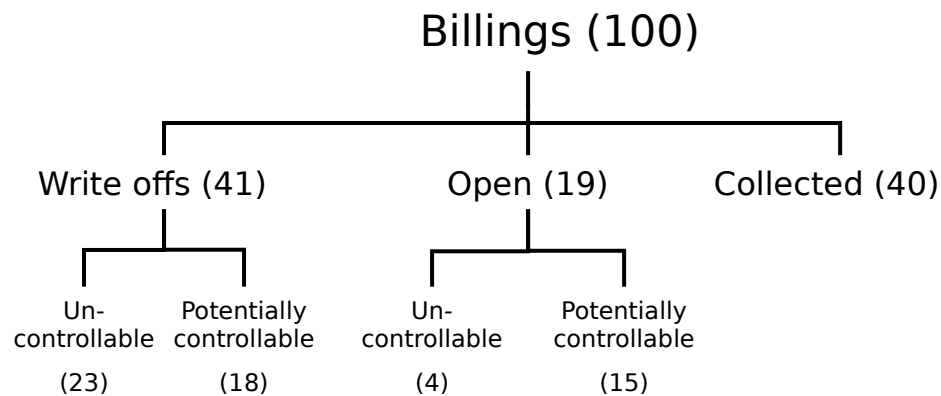
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**DOD 2**

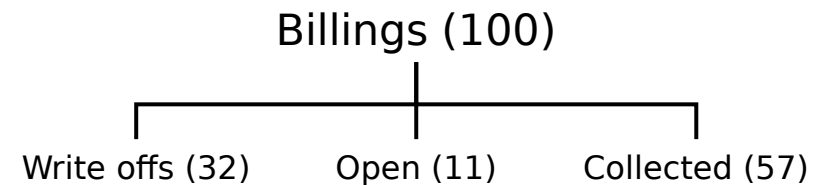
# Opportunities exist to reduce write-offs and open claims (DeWitt outpatient example)

**DRAFT**

## Current state (FY03E)



## Future state (full potential)



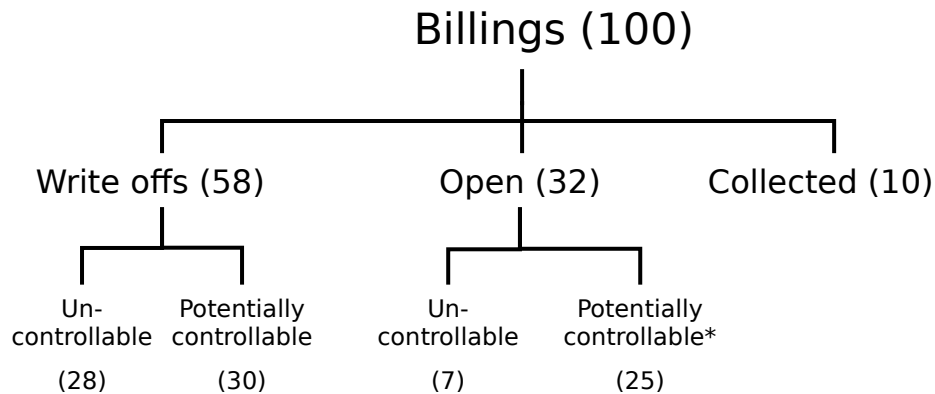
Assuming 50% are converted into collections

Assuming 50% are converted into collections

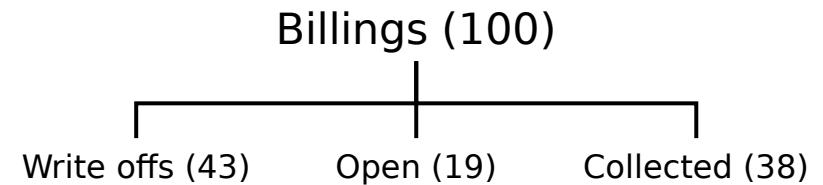
# Opportunities exist to reduce write-offs and open claims (DeWitt inpatient example)

**DRAFT**

## Current state (FY03E)



## Future state (full potential)



Assuming 50% are converted into collections

Assuming 50% are converted into collections

\* Based on outpatient potentially controllable rate as no Explanation of Benefit (EOB) letters were received for inpatient open claims sample.

Source: DACH Denial Study

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